BOROUGH OF PRESTON.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

URBAN AND PORT SANITARY AUTHORITIES,

FOR THE

Year ending December 31st, 1905.

H. O. PILKINGTON,
MEDICAL OFFICER OF HEALTH,
MEDICAL OFFICER TO THE PORT SANITARY AUTHORITY.

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Report of the Medical Officer of Health.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Gentlemen,

Although the death rate of a given town or district is generally supposed to indicate its sanitary condition, and though to a certain extent the evidence thus afforded is undoubtedly of value, still there are certain factors, such as the extent of the area dealt with, the composition of the population, and the length of period under consideration, which materially affect the question, and so must affect, one way or another, the conclusion arrived at.

But, if the general conditions of a locality remain the same, the rise or fall in the rate of mortality during succeeding years, or better still during succeeding periods of five or ten years, will certainly give evidence of its sanitary condition, and this the more certainly the gain or loss has been steady, gradual, and uninterrupted.

On this account I have satisfaction in commencing my Report for the past year of 1905, not only with the statement that the death rate is absolutely the lowest on record, but also that the improvement is not confined to the year in question, but has now been steadily going on for some time, as shown on Table No. 6, from which source also I have drawn the following figures :—

Period.	Average Annual Death Rate.	Natural Increase.
1886—1890	26·23	5750
1891—1895	23·16	5817
1896—1900	20·80	5708
1901—1905	17·70	6559

But the actual improvement in the death rate is greater than might be inferred from these figures, since in 1900, just before the last Census, the population of the town was assessed at 118,902, whereas in 1905—five years later—it is only estimated at 115,721, and this despite the fact that the natural increase—the excess of Births over Deaths—during these five years in question has of itself equalled 6559 lives.

I must again repeat what has been said in previous Reports, that the figures in question deal with the deaths actually occurring within the Borough boundaries, and so to some extent differ from those obtained from the Registrar General's Returns, which include the deaths in the Union Workhouse—Fulwood—of persons formerly resident in the town. But if these deaths are added to those of the Borough proper, it would only seem right that the population of the Workhouse should be added to that of the town.

Again this shows the difficulty of comparing the sanitary condition of one town with that of another by means of the death rate alone, since some towns possess unusual advantages due to the extension of their boundaries, and the absorption of healthy suburbs, populated to a great extent by young persons in the prime of life and in well to do circumstances, the very class amongst whom a low death rate is to be expected. Fulwood and Penwortham are essentially parts of Preston, connected by a continuous line of houses, and inhabited by persons who gain their livelihood, and spend the working portion of their lives, in the Borough, and yet they form no part of the town, nor is their population included in that of Preston. Moreover a Census, taken only once in every ten years, is but an unsatisfactory, because an unreliable, method of ascertaining the population of any large town, and any error in enumeration is continued for a period of ten years, until the time again arrives for another Census. All these are matters which must be taken into consideration in judging of the condition of a town from its death rate, or when making a comparison between one town and another from this standpoint alone.

Following the plan adopted in former years, I commence with the Vital Statistics, and first of all review the various diseases which have combined to form the total number of deaths for the year ; and for the sake of uniformity, and to facilitate comparison with previous years, I deal with them in the same order, and—with certain additions—adopt the same form of Charts, Plans, and Tables as in the Annual Reports for previous years.

The outbreak of Small Pox, which practically commenced in July, 1904, continued, without a break, for twelve months ; the last case being notified, and admitted to hospital, on July 17th, 1905. It is true that after this—on December 8th—another case occurred,

which necessitated the re-opening of the hospital, but this was an isolated case, in no way connected with those already dealt with, and one due to a fresh importation of infection from outside the town. At the beginning of the year 1905, there was a total of 31 patients, 16 males and 15 females, in the Small Pox Hospital at Holme Slack. From this time until the end of June a constant succession of cases continued to be notified, all with seven exceptions, being at once removed, and treated, in hospital.

The subjoined table shows the sex and age of each patient, the dates of admission and discharge, the nature of the disease as regards severity, and the condition of the patient as regards vaccination and revaccination :—

Consecutive Number in Register.	Sex.	Age.	Vaccination.		Unvaccinated	Nature of Disease.	Result.	Remarks.
			When done.	Marks.				
138	F	10	Infancy	3		Variola	Recovered	
139	F	11			Yes	,,	,,	
140	M	25	Infancy	4		Variola Modified	,,	
141	F	32	,,	slight		Variola	,,	
142	M	8	,,	2		,,	,,	
143	M	41	,,			Variola Modified	,,	Re-vaccinated 1879.
144	F	55	,,			Variola	,,	
145	M	16	,,	4		Variola Modified	,,	
146	M	43	,,	2 slight		Variola	,,	
147	M	26	,,	4		,,	,,	
148	F	63	,,			,,	,,	Result of concealed case, afterwards prosecuted.
149	F	50	,,			,,	,,	
150	F	22			Yes	Variola Confluent	,,	
151	M	34	Infancy			Variola	,,	
152	M	28	,,			,,	,,	
153	M	24	,,			,,	,,	
154	M		,,	2		,,	,,	
155	F	41	,,			Variola Modified	,,	
156	M	32	,,	3		Variola	,,	
157	M	25	,,			,,	,,	
158	F	34	,,	2		Variola Modified	,,	From Crossens, near Southport. Result of concealed case.
159	F	28	,,	3		,, ,,	,,	
160	F	22	,,	3		,, ,,	,,	
161	M	35	,,	1 slight		Variola Confluent	,,	Severe case. Alcoholic.
162	M	6			Yes	Variola	,,	
163	M	7			Yes	,,	,,	
164	M	22	Infancy	4		,,	,,	
165	M	38	,,	4		,,	,,	
166	F	44	,,	2		,,	,,	
167	M	30	,,			,,	,,	Brother to 168.
168	M	25	,,	3		,,	,,	Brother to 167.
169	F	47			Yes	Variola Confluent	,,	Severe case. Delirium, Prolapsus Uteri, &c.

Consecutive Number in Register.	Sex.	Age.	Vaccination.		Unvaccinated	Nature of Disease.	Result.	Remarks.
			When done.	Marks.				
170	M	24	Infancy	3		Variola	Recovered	
171	F	49	,,			Variola Modified	,,	
172	F	25	,,	3		Variola	,,	Pregnant.
173	F	24	,,	2		Variola Modified	,,	Pregnant.
174	F	62	,,			Variola	,,	
175	F	16			Yes	,,	,,	
176	M	26	Infancy	3		,,	,,	
177	F	19	,,	slight		Variola Confluent	Death	Septic Pneumonia.
178	F	13	,,	4		Variola Modified	Recovered	
179	M	9			Yes	Variola	,,	
180	M	61	Infancy	slight		Variola Modified	,,	
181	F	7	,,	,,		,, ,,	,,	
182	M	25	,,			,, ,,	,,	
183	F	25			Yes	Variola Confluent	,,	
184	F	28	Infancy	3		Variola Modified	,,	
185	F	47	,,			Variola	,,	Re-vaccinated 5 days before admission, 4 good marks.
186	F	24	,,			,,	,,	Re-vaccinated 10 days before admission, 3 good marks.
187	M	30	,,			,,	,,	
188	F	26			Yes	,,	,,	
189	M	17	Infancy	4		,,	,,	
190	M	6			Yes	,,	,,	Brother to 203, 204, 205, 207.
191	F	5			Yes	Variola Confluent	,,	
192	M	32	Infancy	2		Variola	,,	
193	F	68	,,	slight		Variola Modified	,,	
194	F	10	,,	1			,,	
195	F	10			Yes	Variola	,,	
196	F	46	Infancy	3		Variola Modified	,,	Mother to 197 and 198.
197	F	17	,,	2		,, ,,	,,	Sisters. Daughters to 196.
198	F	19		4		,, ,,	,,	
199	F	5			Yes	Variola	,,	
200	F	5	Infancy	1		Variola Modified	,,	
201	M	6	,,	3		,, ,,	,,	
202	M	17	,,	none		Variola	,,	
203	F	7			Yes	Variola Modified	,,	Successfully vaccinated a week before admission. Sister to 190, 204, 205, 297.
204	F	12			Yes	,, ,,	,,	Sister to 190, 203, 205, 207. Successfully vaccinated a week before admission.
205	M	11			Yes	Variola	,,	Brother to 190, 203, 204, 207.
206	F	34	Infancy	4		,,	,,	
207	F	21	,,			Variola Modified	,,	Sister to 190, 203, 204, and 205
208	M	14 mth	,,			,, ,,	,,	
209	M	42	,,	2		Variola	,,	
210	M	17	,,	1		Variola Modified	,,	

The total number of cases admitted, including the one of later date already referred to, was 73, of whom 34 were males and 39 females. After periods of treatment varying from a fortnight to 2 months, all with one exception were discharged "Cured," the death being that of a young female adult who, being unvaccinated, had a severe attack of Small Pox, and in addition, at the time of removal to hospital, suffered from Septic Pneumonia.

From January 21st to February 4th there was a clear interval of 14 days, during which time no case of Small Pox was officially notified, or otherwise came under observation, and there was therefore reason to hope that—failing a fresh introduction of infection from outside the town—the end of the epidemic was within sight. But this view was unfortunately incorrect, and a fresh crop of cases appeared, the result of an attempt—for a time successful, but ultimately brought to light—to conceal a case of illness known to be one of Small Pox.

In spite of recent efforts to promote vaccination and re-vaccination, there was still unfortunately plenty of material upon which the germs of infection might take root, and as a consequence shortly after the last date mentioned—February 4th—cases again began to come in with monotonous regularity. Several of these could be directly traced to the concéaled case, whilst investigation showed that as regarded certain patients actually under treatment in hospital, the infection was derived from the same source.

Under these circumstances, as a public warning and for the protection of the community, a prosecution was necessary, and this in due course was followed by a conviction. Out of consideration for the age and poverty of the offender—an old woman earning her livelihood by washing—only a nominal penalty was asked for; but it was publicly stated that such leniency could not be expected by, nor would it be extended to, any future offender.

An examination of the Register of cases admitted to hospital shows a large proportion of children unprotected by vaccination, a strong proof of the inefficient manner in which the Vaccination Act had of late years been carried out within the Borough. From the same source, another important and instructive conclusion may also be drawn, one referred to in my Report for 1904, and the accuracy of which has been confirmed by subsequent observation. At the begining of the outbreak—that is about the middle of 1904—the tramp class formed a dangerous factor in conveying Small Pox from one town to another, the Common Lodging Houses required to be very closely watched, and numerous cases were at various times removed from them to hospital. But later on it became quite the exception to meet with a case amongst the tramps and hawkers who patronize these lodging houses, and this no doubt

was due to the vaccination and re-vaccination which by compulsion, persuasion, or possibly bribery, had been extensively carried out both in these houses and in the various Casual Wards throughout the country.

In dealing with the various cases of Small Pox, the first thing aimed at was the prompt removal of the patient to hospital, and in the great majority of cases this was at once accomplished, opposition being but seldom offered either by the patient or friends. This was followed, or rather accompanied,—for the processes were simultaneously carried on,—by the careful and thorough disinfection of the house and its inmates, as well as of any other place where the patient had recently been, and where as a consequence infection might have been conveyed.

Information was forwarded to the Vaccination Officer, and every effort made to secure the re-vaccination not only of the other residents in the house, but also of the neighbours, fellow work people, and all who had been exposed to the danger of contracting infection. In some cases, where the poison was already absorbed, the operation was too late to prevent the development of the disease, but here the effect was to modify the severity of the attack and render the illness a comparatively mild one.

Others who refused the proffered help, and found themselves within the next fortnight inmates of the hospital, deplored their own folly, or regretted that they had listened to the unwise counsels of so-called friends. It is a good proof of the protective power of re-vaccination, that none of the Officials of the Health Department, who had universally adopted this precaution, contracted the disease; despite the fact that from the nature of their duties they were frequently and closely brought into contact with the infection.

As in the first part of the epidemic, dealt with in my Report for 1904, so up to the final stage I had at all times the ready and cheerful assistance of the whole of the Sanitary Staff, to whose exertions in the performance of duties, exacting, responsible, and dangerous, must be largely attributed the prevention of a wider spread of infection, and the comparatively slight disturbance or dislocation of the business of the town, occasioned by the outbreak. With 7 exceptions, where the patients were, for various but sufficient reasons, allowed to remain, and be treated, at their own homes, all the cases of Small Pox were removed to Holme Slack Hospital, and none I believe left that building without a feeling of gratitude to the caretakers, Mr. & Mrs. Wheelan—for the kind attention received during their stay.

From Typhoid Fever, a disease intimately connected with sanitation—the mortality throughout the year was low, the deaths numbering 17, or little more than one half the average for each of the past six years.

The deaths formed 16·19 per cent. of the reported cases of sickness, and, as is so commonly the case, were chiefly those of young adults, the age class most frequently affected by this form of Zymotic disease. Neither the sickness nor consequent mortality was especially prevalent in any one part of the town, Park Ward, with the highest population contributing 3 of the deaths, whilst Avenham Ward was the only district which escaped without a single fatality. Again—in accordance with the usual rule—the greatest amount of Typhoid sickness was observed from the latter part of Autumn until the close of the year, and it was during the last four months that the majority of the deaths were recorded.

Scarlet Fever was the cause of 8 deaths, all of which, with one exception, occurred in children under the age of 5 years. Towards the close of July an increase in the amount of sickness from this cause became apparent, and though the outbreak never assumed epidemic proportions, cases continued to be regularly reported until the end of the year. With very few exceptions the type of disease was mild, and this diminution in the severity of attack has now been observable for several years, not only here but generally throughout the country. It must not be overlooked however that in the very mildness of the symptoms there lurks an undoubted danger, since the rapid recovery of the patient from the immediate attack is apt to lead to a disregard of necessary precautions, and to a consequent increase in the danger from those complications which so frequently follow in the train of this disease. Parents should not forget that the mildest case of Scarlet Fever renders the patient for some time especially liable to cold and chills, that the poison is then no longer eliminated from the body, but is directed to the kidneys, and that in this way many children who have apparently rapidly recovered from a mild attack of Scarlet Fever, are rendered more or less delicate for the rest of their lives.

Measles began to spread towards the end of September, and as is often the case with this disease, had assumed serious proportions before its presence in the town was recognized. As a rule this disease recurs at intervals of about three years, but during each of the last three or four years a considerable amount of mortality has been recorded from this cause.

Still no fatal case occurred during the first nine months of the year, but during the last three 84 deaths were recorded, and at the end of the year it had assumed the form of an epidemic from which no quarter of the town was entirely free.

Trinity and Park Wards in the centre, and St. Peter's and Moor Brook Wards on the northern side of the town were the districts in which the disease first appeared in force, and it was in these localities that up to the end of the year the majority of the deaths had been recorded.

Whooping Cough was present in epidemic form at the commencement of the year, and continued, but with gradually abating intensity, until the month of September. It caused the deaths of 76 children, of whom 34 were under the age of twelve months, and the remaining 42 between the ages of one and five years.

It affected almost every part of the town, Park, Deepdale, Fishwick and Trinity Wards showing the heaviest death rates in the order mentioned, whilst Avenham Ward was the only district that escaped without a death.

The rate of mortality from this cause was 0·65 per thousand, a calculation of little importance—since the disease is one confined to children—except as a means of forming a comparison with other towns; and as shown in Table No. 5, Preston stands the highest in this respect amongst the 39 large towns therein dealt with.

Both the diseases last mentioned—Measles and Whooping Cough—are essentially diseases of early childhood, diseases which not only affect children during the first few years of their lives, but which are most severe in their effects and most fatal in their results in an inverse ratio to the age of the child affected, *i.e.*, the younger the child and the more likely it is to succumb to an attack.

For these reasons it is most desirable first to safeguard the child from an attack, and secondly to delay as long as possible the period of attack.

It is a mistake—but unfortunately a common mistake—to suppose that every child must of necessity have one or both of these diseases, and it is mainly to this mistaken idea that one must attribute the apathy and carelessness shown by so many parents in protecting their children from possible infection. But since every year added to the child's life not only lessens the chance of its contracting infection, but also materially increases its chance of recovery, it must be of importance to protect the child, especially during its early years, and so if not to evade, at any rate to reduce, the dangers of such an illness.

The aggregation of children in a schoolroom, and the contact of their out-door clothes in the cloak rooms, are undoubted causes in the dissemination of infection and in the production of epidemics.

For these reasons I have advocated the closing of the Infant Schools, at times when the infection of one or other of these diseases would appear to have taken hold of a particular school, and to threaten to run its course throughout the whole of the children. There is a question as to the efficacy of such a proceeding, apart from the general question as to whether or not children under the age of five years should or should not attend School at all, but for the reasons above given I think the course to be a prudent and desirable one.

The following is a list of the schools closed on account of these diseases, dealing in the first place with Whooping Cough, since as already stated, this disease appeared in the early part of the year, whilst Measles did not attain any severity until towards the Autumn quarter.

Whooping Cough Epidemic, 1904-5.—List of Schools Closed from February 21st to May 12th, 1905.

School.	Period of Closure.
Moor Park Infant School	Closed for 1 Month from February 21st, 1905.
Do. Do.	Extended from March 22nd, until after Easter Holidays.
Ashton Wesleyan Infant School	Closed for 1 Month from March 7th, 1905.
Do. Do.	Extended from April 4th, until after Easter Holidays.
T. C. Hincksman Memorial Infant School	Closed for 1 Month from April 15th, 1905.
St. Michael's Mixed School	Closed for 1 Month from May 2nd, 1905.
Do. Infant School	Closed for 1 Month from May 2nd, 1905.
Do. Do.	Extended from May 27th, 1905, until after Whitsuntide Holidays.
St. Barnabas' School	Closed for 1 Month from May 12th, 1905.
St. Ignatius' H.G. Infant School	Closed for 1 Month from May 12th, 1905.
St. Andrew's Infant School	Closed for 1 Month from May 12th, 1905.

MEASLES EPIDEMIC, 1905-6.:—List of Infant Schools Closed from October 2nd, to December 23rd, 1905.

School.	Period of Closure.
St. Thomas'	Closed October 2nd, to October 30th, 1905.
Do.	Extended October 30th, to November 6th, 1905.
Moor Park	Closed October 23rd, to November 20th, 1905.
English Martyr's	Closed October 26th, to November 23rd, 1905.
All Saints'	Closed October 30th, to November 27th, 1905.
St. Ignatius' (Elementary)	Closed November 8th, to December 6th, 1905.
Do. Do.	Extended till after Christmas Holidays.
St. Jude's	Closed November 13th, to December 11th, 1905.
Do.	Extended till after Christmas Holidays.
St. Barnabas	Closed November 15th, to December 13th, 1905.
Do.	Extended till after Christmas Holidays.
Emmanuel	Closed November 20th, to December 18th, 1905.
Do.	Extended till after Christmas Holidays.
Barlow Street	Closed November 25th, to December 23rd, 1905.
Do.	Extended 2 weeks after Christmas Holidays.
Parish Church	Closed November 28th, to December 26th, 1905.
Eldon Street	Closed November 29th, to December 27th, 1905.
St. Luke's	Closed November 29th, to December 27th, 1905.
St. Peter's	Closed November 29th, to December 27th, 1905.
Do.	Extended for 2 weeks from January 10th, 1906.
Do.	Extended for 2 weeks from January 24th, 1906.
Orchard U.M.F.C.	Closed November 30th, to December 28th, 1905.
St. Ignatius' (Higher Grade)	Closed November 30th, to December 28th, 1905.
Plungington Road National	Closed December 1st, to December 29th, 1905.
Do. Do.	Extended for 2 weeks after Christmas Holidays.
St. Mary's National	Closed December 5th, to January 2nd, 1906.
Do. Do.	Extended for 2 weeks after Christmas Holidays.
St. Matthew's (Branch)	Closed December 6th, to January 3rd, 1906.
Do. Do.	Extended 2 weeks after Christmas Holidays.
Christ Church	Closed December 8th, to January 5th, 1906.
St. Walburges	Closed December 8th, to January 5th, 1906.
Do.	Extended for 2 weeks from January 10th, 1906.
St. Paul's	Closed December 11th, to January 8th, 1906.
Do.	Extended for 2 weeks from January 9th, 1906.

It will be seen that in many cases, more especially as regards Measles, the period of closure had to be extended, because the reports furnished by the School Teachers, as well as information gained by the systematic visits of the Health Visitors in affected neighbourhoods showed that at the end of the month numerous houses still remained infected.

And here I would explain the system which has been adopted by the united action of the Education and Health Departments, in dealing with diseases especially affecting children, but which are not included in the list of those infectious diseases for which under the Act of 1890 compulsory notification is required. The school teacher on observing any child to be suffering from what appears to be Measles, Whooping Cough, Chicken Pox, Mumps, Ringworm, Sore Eyes or Heads, at once reports the name, age and residence of the affected child to the Director of Education, who forwards the information to the Health Office. These particulars are entered in a book under the heading of the school in question, and the case is passed on to the Health Visitor to be placed upon her list. As soon as possible she visits the residence of the child, and gives instruction as to isolation, disinfection, &c., carefully avoiding any interference with the directions of a doctor, if one be in attendance; or if the case seem at all severe, and medical assistance has not already been obtained, recommending that this should at once be sought. In this way much good may be directly done, whilst the illness of the child gives a valid reason for the visit to the house, and furnishes an opportunity for giving useful advice as to cleanliness and household management.

When the disease is one included in the schedule of notifiable diseases, upon receipt of the certificate from the Doctor in attendance, the necessary visits are made by the Sanitary Inspectors who enquire as to the possible cause of the illness, examine the house, and arrange for the use of disinfectants and for subsequent fumigation of the premises.

Of course many of these certificates refer—as in the case of Typhoid Fever—to adults, but in these houses there are very frequently children of school-going age, and in these cases the following notice A is sent to the schools at which these children attend, and upon the termination of the case another notice B is sent giving permission for the return of the child or children, to school. During the past year 582 of these notices were issued to exclude children from school, and an equal number to readmit them after disinfection of the house in which they lived.

A

A case of Infectious Disease has been notified at the above premises, and I therefore request that you you will exclude from attendance at School all children living in this house, until the receipt of a further report from this office.

B

I beg to inform you that the above-named premises have now been disinfected, and that the children residing there are at liberty to return to School.

As already has been said most of these children's diseases are looked upon as evils which every child must inevitably undergo, but to dispel this error, and to impress upon parents the serious and infectious nature of what are so often regarded as trivial and unavoidable affections, the following copy of Sec. 3 of the Improvement Act of 1890 has been delivered to every house throughout the town :—

COUNTY BOROUGH OF PRESTON.

NOTIFICATION OF INFECTIOUS DISEASE.

NOTICE IS HEREBY GIVEN of the following provisions of the Infectious Disease (Notification) Act, 1889, which Act applies to this Borough, viz. :—

Sec. 3 (1) Where an inmate of any building used for human habitation within a district to which this Act extends is suffering from an infectious disease to which this Act applies then, unless such building is a hospital in which persons suffering from an infectious disease are received, the following (inter alia) provision shall have effect, that is to say :—

(a) The **head of the family** to which such inmate (in this Act referred to as the patient) belongs, and in his default **the nearest relatives** of the patient present in the building or being in attendance on the patient, and in default of such relatives **every person in charge of or in attendance** on the patient, and in default of any such person **the occupier** of the building **shall,** as soon as he becomes aware that the patient is suffering from an infectious disease to which this Act applies, **send notice** thereof to the Medical Officer of Health of the district.

* * * * * *

(2) Every person required by this Section to give a notice or certificate, who fails to give the same, shall be liable on summary conviction in manner provided by the Summary Jurisdiction Acts to a **Fine not exceeding Forty Shillings.**

Provided that if a person is not required to give notice in the first instance, but only in default of some other person, he shall not be liable to any fine if he satisfies the Court that he had reasonable cause to suppose that the notice had been duly given.

Sec. 6. In this Act the expression "infectious disease to which this Act applies" means any of the following diseases, namely, **Smallpox, Cholera, Diphtheria, Membranous Croup, Erysipelas,** the disease known as **Scarlatina or Scarlet Fever,** and the Fevers known by any of the following names, **Typhus, Typhoid, Enteric, Relapsing, Continued,** or **Puerperal,** and includes, as respects any particular district any infectious disease to which this Act has been applied by the local authority of the district in manner provided by this Act.

And the Health Committee of the said Borough request that a Parent or Guardian of any Child who is suffering from **Measles, Whooping Cough, or Chicken Pox,** will, so soon as he or she becomes aware of the existence in such child of such disease, **forthwith give Notice** to the Medical Officer of Health at the Health Offices, Tithebarn Street, Preston.

By Order,

Town Hall, Preston,
November, 1905.

Henry Hamer,
Town Clerk.

In addition to the education thus afforded, one good effect has been to lead parents in numerous instances, to report to the Health Office, cases which otherwise might have passed unnoticed.

The following Table shows the number of children reported as suffering from diseases not compulsorily notifiable, the age periods affected, and the proportion which the affected children bear to the number of children attending school :—

Number of Cases of Sickness reported by School Teachers, and Per-centage of such cases to total in attendance at School between the age periods—3 to 5; and 5 to 14 years.

Age period	No. of Cases.	No. of Children.	Per-centage of Attendance.
3 to 5	554	2147	25 per cent.
5 to 14	1182	18449	6 per cent.

Total Cases reported—1736 :—

3 to 5 ... 554 5 to 7 .. 780 7 to 10 ... 265 10 to 14 ... 137

From this it will be seen how large is the proportion of very young children affected, whilst the mortality statistics show how much more fatal are these diseases when attacking children under the age of five years.

Diphtheria was the cause of 17 deaths, a number below the average for former years. The notified cases of sickness amounted to 86, so that the case mortality was a trifle under 20 per cent. The cases which terminated fatally as a rule ran a very rapid course, many of the children being dead before, or about, the time of the certificate arriving at the Health Office. In all instances a careful examination of the house was made, and where possible the drains were specially tested. In several instances defects were found which not unlikely were connected with the illness. The death rate from Diphtheria amounted to 0·14

per thousand of the population, and was exceeded in 26 of the 39 large towns dealt with in Table No. 5.

As regards Diarrhœa the past year was by no means one of those showing a more than usually severe mortality. Indeed for a time it seemed as though the town was about to escape the epidemic, from which to a greater or less extent it has invariably suffered, as it was not until the end of August that any decided rise in the mortality was recorded, and this although the ground temperature, at a depth of four feet, had nearly two months previously reached the critical point of 56 degrees. The last week in August and the first in September saw a decided rise in the death rate from this cause, followed by an equally rapid and decided fall.

But short as the actual period of the outbreak might be, it was still sufficiently long to add a large number of Diarrhœal deaths to the list of mortality.

In the four weeks ending September 13th 72 deaths were recorded from this cause, of which 59 were those of infants, and 10 children between the ages of 1 and 5 years.

The total number of deaths caused by Diarrhœa throughout the year was 132, and of this number not more than 5 were those of persons of adult age. As shewn by Table 12, visits were paid to 112 houses in connection with these deaths, and though the great majority of these were found to be in a clean, or fairly clean, condition, only a very small proportion of the children—9—are returned as having been "breast fed." Another 9 are described as "partially breast fed," whilst 94 at the time of their death were dependent upon milk or other foods given by the bottle or spoon. It is possible that some of these last named may for a short time after their birth have been suckled, but since at the time of death so many of them were only a few months old, this period must have been a very short one indeed.

The actual ages at which these Infantile deaths from Diarrhœa occurred is shown in Table 5a, a Form drawn up by the Local Government Board, and ordered to be incorporated in the Annual Reports of all Medical Officers of Health. The Table in question gives an analysis of all Infantile deaths divided into periods of one week up to the first month, and then of each month to the end of the year.

Still further information as to locality is given in the Plans of Infantile Diarrhœal Mortality, and of Infantile Mortality from all causes.

Erysipelas occasioned 2 deaths, although the number of cases of sickness reported amounted to 78, so that the case mortality did not exceed 2·56 per cent.

Many of the cases were of a trivial character, either the result of cold in persons having a constitutional tendency to the disease, who had not unfrequently suffered from previous attacks, or else they were cases in which some Erysipelatous blush followed upon a traumatic lesion.

Still I think it wise that Erysipelas should continue to be included in the list of notifiable disease, because under certain conditions it is undoubtedly infectious, because its severity and danger are increased by insanitary surroundings, and lastly but not least on account of its possible connection with the only other form of Infectious disease with which it remains to deal—Puerperal Fever.

Of this last named terrible disease 10 cases were notified, of which 7 terminated fatally. It is hardly necessary to explain the peculiarly painful circumstances which must attend a death from this cause. The patient must be in the prime of life, because of child-bearing age, the fatal termination to an event looked forward to with joy is often quite unexpected, and an infant is often left without a mother, at the very time when it most requires a mother's loving care.

The deaths in question occurred at different times, and in various parts of the town. There was no evidence of any connection between one case or another, nor was there any ground for suspicion of a want of proper care on the part of those to whose charge the patient had been entrusted. Still there is often a disregard of that strict cleanliness which should be observed by all who come in contact with the parturient woman, and which should certainly exist in the lying-in chamber, so much so that one can only wonder how nature so often overcomes the danger, and how the patient tides over her time of peril.

The number of deaths registered under the heading of Consumption was 125, a number almost identical with that of the preceding year, or with the average recorded during each of the six previous years. But in addition to these deaths, 79 others have been caused by some other form of Tubercular disease, such as Meningitis, Peritonitis, Marasmus, the greater part having been recorded in infants, or children under the age of 5 years.

How best to deal with Tuberculosis, and how to protect the community from what is now generally recognised to be an infectious disease, is a question which, especially of late years, has occupied the attention of Medical men, Sanatarians and Philanthrophists, and has formed a subject for earnest thought and discussion at all recent Sanitary Congresses, or meetings of a kindred nature.

To make the disease one compulsorily notifiable means a considerable initial expense, an increase in the Sanitary staffs of all Authorities, and—if the matter is to be followed to a logical conclusion—the provision of Hospitals or Sanatoria for those patients who have not facilities for isolation and suitable treatment in their own homes.

A few such Sanatoria have been erected in various parts of the Kingdom, but they offer nothing approaching adequate accommodation for the treatment of a disease which unfortunately is so widely spread, so universally to be met with. The fact that Institutions, expensively built, and luxuriously furnished, have been provided for confirmed drunkards, might suggest the possibility of erecting a cheaper form of Hospital, in a suitable climate, for consumptives, but at present there is little prospect of this being carried out. But at any rate in dealing with Tuberculosis, as with Infantile Mortality, there are at hand, within easy reach, two powerful agents, improved sanitation in the poorer parts of town and country, and educational progress. Just as Ague, formerly endemic in the Fen districts of England, has yielded to systematic drainage and a good water supply, so Consumption can be fought by improved ventilation of factories, workshops and dwelling-houses, and by a wider diffusion of the knowledge as to in what its danger consists, and how best it can be avoided and combated.

The operative classes are gradually being taught the necessity for fresh air, not only in the places in which they gain their livelihood, but also in the homes, and especially in the bedrooms, in which they take their rest, and that Consumption, like any other infectious disease more certainly attacks, and more easily conquers, a system enfeebled by dissipation or excess.

The expectoration of a Consumptive patient swarms with the germs of the disease, and these becoming dry are easily carried about in the atmosphere, and so are either inhaled, or, settling upon food, are thus conveyed into the bodies of others. If the soil upon which they settle is a suitable one, they may then take root and set up the disease, and for this reason, if for no others, the crusade against spitting in public places should have the support of all sanitarians.

But if danger lurks from this source in the open air, how much more likely is the dried expectoration of a patient to do harm in a confined, ill-ventilated bedroom, not seldom occupied by other members of the same family, probably tainted by hereditary predisposition to the disease.

The death rate from Tuberculosis amounted to 1·90 per thousand, and though this rate was exceeded in several of the large towns, it stands at about the average of those shown in Table 5, from which statistics on this point were available.

In the case of all deaths from Consumption, disinfection of the premises was advised and offered, this being a precautionary measure at all times to be recommended, but especially in the case of a room that has for a long time been occupied by the invalid.

The deaths from Bronchitis and Inflammation of the Lungs numbered respectively 230 and 105, the mortality from both causes being below the average recorded in previous years. As is almost invariably the case with these diseases, the greatest mortality occurred during the cold weather at the beginning and end of the year, and was registered amongst the very young and those of advanced age, the two periods least able to withstand extremes, or sudden variations, of temperature.

The deaths from diseases peculiar to infants or very young children, and classified under the mixed heading of Teething, Premature Births, and Debility numbered 311, of which 261 were those of infants under the age of twelve months, 46 children between the ages of 1 and 5 years, and 4 of children whose age slightly exceeded the last-named period. Although born alive, many of these children had never more than the most feeble grasp of life, or the faintest hope of ultimate survival.

Of the number, 79 succumbed during the first week, many within a few hours of birth, 54 having been prematurely born, and the rest being either congenitally defective or altogether deficient in vital stamina. Another 55 numbered their lives by weeks alone, so that 134 died before the expiration of the first month.

If to the deaths under one year from these causes, there be added the deaths of infants from Measles, Whooping Cough, Diarrhœa, Bronchitis, Inflammation of the Lungs, and other causes, a total is reached of 490 who failed to survive the first year of their lives.

Estimated in the usual manner, that is by the number of children who die during the first year out of every thousand born, the above figure gives an Infantile rate of mortality equal to 150 per thousand, a rate which, like the general death rate, is lower than has ever previously been recorded. Together with other matters, Table 1A gives the figures dealing with this point during each of the past 10 years.

During the past year, Preston no longer holds her usual unfortunate position as regards Infantile Mortality amongst the other large towns, Table No. 5 showing that amongst the 39 therein dealt with, 13 have a rate exceeding that of 150 per thousand. In considering the Infantile mortality, Table No. 12, giving a summary of the work done by the Health

Visitors, must be taken into consideration; because very properly much of their time is devoted to visiting houses in which there are either children newly born, or suffering from some of the affections especially prevalent amongst the very young.

Although the figures therein contained are an improvement upon those of recent years, and are very much better than could have been obtained ten or twenty years ago, they still contain sufficient to account for the deaths of a considerable number of these children.

The standard of cleanliness used is not an exacting one, and yet a number of the houses cannot but be described as dirty. A proportion of the infants at the date of visit are found to be wholly or in part artificially fed, or to have been so fed at the time of their death, and it can be well imagined that in the case of a child brought up on spoon or bottle amidst dirty surroundings, the food—if even suitable—is not likely to be kept scrupulously clean.

Still the general condition of things in this respect is better than it was some years since; and many of the re-visits paid during the past year have shown a general improvement in the condition of the household; and therefore an effort—an effort to be carefully and studiously encouraged—on the part of the house-mother to profit by the instruction and advice that has been given her. The condition of each household must rest with the heads of the family, especially with the mother, and she should therefore recognize that upon her depends not only the comfort but the health of the inmates, and not only the health but the very life or death of the younger members.

And now when the Birth rate throughout the country is so steadily falling, it becomes more than ever a matter of national importance that the children who are born, should not only survive, but that they should grow up to be the strong and healthy men and women of the next generation.

The deaths of children under the age of one year stood at the ratio of 4·23 per thousand of the population, and formed 25·70 per cent., or slightly over one quarter, of the total deaths at all ages.

The Plan of Infantile Mortality shows the exact position of all these deaths under the age of twelve months; whilst the following Table enables a comparison to be made as to the rate of Infantile Mortality in each of the several Wards.

Infantile Mortality, 1905.

St. John's	Ward	191	per 1,000	Births.
Avenham	do.	134	do.	do.
Christ Church	do.	140	do.	do.
Ashton	do.	95	do.	do.
Maudland	do.	169	do.	do.
St. Peter's	do.	170	do.	do.
Moor Brook	do.	137	do.	do.
Park	do.	166	do.	do.
Trinity	do.	151	do.	do.
Deepdale	do.	139	do.	do.
Ribbleton	do.	105	do.	do.
Fishwick	do.	134	do.	do.

St. John's shows the highest rate, followed by St. Peter's, Maudland, and Park Wards; whilst Ashton with its good class houses and breezy situation holds the best place, followed by Ribbleton, which last named locality has not only a low general death rate for the year, but has during the past few years made great improvement as regards its Infantile Mortality.

Further information with regard to the various deaths will be found in the Tables referred to, as well as others, which with the Charts and Plans are appended to this Report.

The deaths of 88 old people were attributed to Senile Decay, without actual organic disease, a number somewhat below the average from this cause in recent years.

Violence accounted for 75 deaths, of which 1—that of an infant—was due to Murder, 15 to Suicide, and the remainder to various forms of accident.

The remaining deaths numbered 625, and were due to causes other than those already dealt with. They were mainly made up of diseases of the Heart and Circulatory System, Cerebral Hæmorrhage, Cancer or some other form of Malignant disease.

Altogether during the year, from all causes, and at all ages, there was registered a total of 1906 deaths, which number gives a rate of mortality equal to 16·47 per thousand of a population estimated at 115,721.

The Births amounted to 3259, and represented a rate of 28·16 per thousand, whilst the natural increase—the excess of Births over Deaths—was equal to 1353 lives.

A summary of the work done by the Sanitary Inspectors in their several districts will be found in Table No. 9, but in addition to this a large amount of work—shown in succeeding Tables—has been done under the Factory and Workshops Act, as well as by the Inspector of Meat, Slaughter Houses, and Food and Drugs.

Very considerable progress has been made in that all-important work the conversion of privies and ashpits to water closets, and movable ash pails; and a glance at the Plan of Improvements will show that Preston is no longer a town of privy-middens but one of water-carriage. In Nos. 1 and 2 Districts, embracing the centre, the eastern, and a portion of the northern parts of the town, there still remains localities which require improvement, and which each month are receiving attention; in No. 3 District the work is completed, while in No. 4 but little remains to be done. During the past year 1,201 notices were served for work of this kind, and the Plan referred to, published each year, shows how year by year the work of improvement has been carried out over all parts of the town. Each block has been examined, reported upon, and dealt with according to its demerits, whilst the powers obtained in the Improvement Act of 1900, has enabled the Authority to require the flagging of yards, hitherto insufficiently paved. But since this power has only recently been acquired, there exist a considerable number of houses, improved as regards the closet accommodation, but with yards covered with pebbles, bricks, or some other unsuitable and insufficient material.

These also are gradually but steadily being dealt with, and during the past year 1,299 Notices were served requiring the flagging of back yards.

In an old town like this one great sanitary evil is the inadequate yard space at the backs of the houses, a space insufficient in the first instance but which has gradually been encroached upon by additions to the house, and by the erection of outbuildings.

In many of the main thoroughfares what were originally lines of dwelling houses, have now been converted into continuous rows of small shops, and the necessity for more houseroom has been met by the building out of kitchens and sculleries, and by the covering over of a part of the yards. As a consequence the backs of these houses are dark, confined, and surrounded by buildings, and in such a situation a privy and ashpit, within a short distance of the back door and windows, must form an intolerable nuisance. This condition is found generally throughout the older parts of the town, where no back passage intervenes between the yards of one line of dwellings and those in the adjoining street, but even in the newer districts, those provided with a twelve foot passage, a receptacle in which for months is stored the excreta and refuse of a household, situated at not more than a few feet from the back door, must be a nuisance and a danger to the inmates. This is gradually being

recognized by the owners of cottage property, and in a certain number of houses each year the conversion to water carriage and the flagging of the yards is voluntarily being carried out. In existing buildings, greater yard space cannot be obtained, but where a pedestal water closet with a 3 gallon flush is provided, where the yard surface is covered with flags, where the ash pail is used for dry ashes alone and household refuse is burnt on the kitchen fire, there need be nothing offensive retained about a house, no matter how poor or crowded the locality in which it is situated.

The limewashing of the yard walls, lobbies and outbuildings serves to purify the atmosphere and to lighten up the kitchen and back rooms; and this is a sanitary measure within reach of the poorest, since, upon application at the Health Office, lime, ready sized and prepared for use, will be given out, whilst the loan of brushes may also be obtained.

Whilst much has been done to improve the homes of the working classes, the Factories, Workshops, and other places in which their hours of employment are passed, have not been neglected. What has been done during the past year in this direction is shown in Table 6A drawn up by the Local Government Board; as well as in Tables Nos. 9 and 10 arranged upon the same lines as in former years. In the case of new Mills, or of extensions to existing ones, the question of closet accommodation is a comparatively easy matter, but where the building is an old one, the lack of adequate space within a reasonable distance of the work-room, greatly increases the difficulty of suitable improvement.

Still on the part of the great majority of mill owners and managers there has been a disposition to do whatever was possible to increase the comfort and improve the "morale" of their operatives, and I would again remind the latter that the best acknowledgement they can make of the trouble and expense to which the employer has often been put, is to make a proper use of—and not wilfully to destroy—that which has been provided for their comfort and advantage.

With a view to improving some of the older and most confined parts of the town, a Sub-Committee was appointed in June for the purpose of visiting all Courts, Yards, back-to-back houses, and houses having no through ventilation. The number of these remaining is now but few, and the greater part are kept in good condition. After the Sub-Committee had completed its labours, the following Report was drawn up, and was afterwards adopted by the Health Committee at the September meeting:—

REPORT, BACK TO BACK HOUSES, &c.

To the Chairman and Members of the Health Committee.

Gentlemen.

At a Meeting of your Committee on July 18th, a Sub-Committee was appointed for the purpose of visiting Melling's Yard; and its labours were extended so as to include

Back to Back houses, those having no through ventilation, those situated in Courts, Cellar dwellings, and in short the poorer, and presumably the least sanitary, of the houses in the town. The Sub-Committee met and carried out its work of inspection on five occasions, and, so far as this class of property is concerned, has completed the survey of the whole town.

The following Report—part of which was only verbal—was presented to the Sub-Committee at its last meeting on the 12th inst., and the course of procedure therein recommended received approval.

At the outset, I pointed out that while it might have been possible legally to close many of the houses, on the ground of their deficiency in sanitary requirements, such a course of procedure, indiscriminately carried out, would not tend to the sanitary advantage of the town, since there are always a certain number of persons, who from age, infirmity, or other sufficient reasons, are unable to pay more than a very small weekly rent, and who—if the houses which they now occupy were closed—would be forced to find lodgings with some other family—often with the result of causing overcrowding—or would have to seek, as a last refuge, the Workhouse.

Although this was not the actual order in which the various localities were visited, I have now arranged them according to the respective Sanitary Districts in which they are situated.

No. 1 District.

1 to 4 Back Witton Street and 1 to 4 Back Higford Street. These are three storey houses built back to back, and therefore have no through ventilation. Some years since they were cleaned, repaired, and provided each with a water-closet on the other side of the street. They are in good order, and require no further alteration.

106 Porter Street. This is a small house, having no yard, and no through ventilation. The water-closet is situated in the cellar. It is placed at the corner of Graham Street, and dovetails with No. 16 in that street. This latter house has a small yard, and the two houses should be thrown into one.

No. 2 District.

No. 24 Nile Street with house at back. Here the lobby was found to be out of order and should be repaired. This work has now been done.

Smith Court and Nos. 30, 31, 32 Pole Street. These were found to be in a fairly satisfactory condition.

Nos. 6, 8, 10, and 12 Dover Street, and four corresponding houses Back Dover Street. These houses have a good open yard with four water-closets, one for each house back and front. One of the back houses was found to contain four persons, but this number has been reduced, and the owner undertakes to keep it so.

Nos. 13 and 15 Percy Street, with two houses behind. These were clean and in good order, one water-closet being provided for each pair of houses.

Whitehead's Yard, Derby Street. Two small houses which join at a privy and ashpit, the latter used by No. 7 Derby Street. Notice has been served to convert to water-closets and to do away with the ashpit, and this has been carried out.

Hammond's Row. This is a line of 12 houses running off Lord's Walk. Although they have no yards behind, a certain amount of through ventilation is obtained by means of sky-lights on the back roof. The ground is open in front and contains a double range of Mac.Farlane's trough closets in bad repair. The owner will build a range of pedestal closets (1 to every 2 houses) at right angles to the present stack, and facing the wall in front of the houses. I have advised him to arrange with one of the tenants, who for a consideration, will look after the condition of these closets..

Mill Bank, Church Street. The houses Nos. 1 to 11 are situated on two sides of a square shaped piece of ground. There is a stack of Mc.Farlane's closets, one to each house—with automatic flush. The owner lives near, and sees that this property is kept in good condition.

Taylor's Court, Friargate. Three small houses with two privies. Notice has been served for the conversion to water-closets, and for the repair of pavement, and channel for slop water.

Lill's Court, Friargate. These houses have a narrow yard behind, running to a point at upper end. They have water-closets and the yard is flagged, but three of the houses have no slopstones. Notice has been served on the owner to supply these.

Union Street, Friargate. At the end of a lobby at the side of No. 27 on the South side of the street, are two Mc.Farlane's closets, used by the tenants of these and of two houses on the opposite side of the street. The yards are so small, that the closets are close to the back doors, and I advise their conversion to pedestal closets; (so that the excreta will be at once removed), and the flagging and general repair of the yards.

Rigby's Court, Friargate. Nine houses with one water-closet and ash-pit. This yard is looked after by owner and is kept clean, and the houses in good repair.

Chew's Yard, Friargate. One small house occupied by a very old woman. To remain undisturbed.

Barrett's Court, Walker Street. Three houses occupied by small families. One water-closet.

Cheetham Street, off Lord Street. No. 5 and 7 in front, with three houses behind. Two water-closets supply the five houses.

Back Dawson Street, North Road. Three small houses occupied by one and two persons respectively.

Fish Street. Four houses built back to back. These should be opened through, making two houses.

Nos. 9 and 10 Starchhouse Street. Small houses in fair condition. The block of property opposite forming Starchhouse Yard, is so situated as to form an obstruction, reducing Back Lane to a bottle neck just at its entrance on to the Covered Market. Formerly four houses occupied the centre of the yard, but these were condemned as dwellings, and after being for a time used as storehouses, have now been pulled down.

Improvements have recently been made, a strip of ground behind each of the houses having been flagged. The property is very old, and some of the roofs and chimneys are in such a condition as to be dangerous. The question of dealing with this property

might for the present be deferred, pending the action of the Surveyor with regard to the dangerous building. Since the visit of the Sub-Committee the condition of the closets has been very considerably improved, locks have been replaced on the doors, and an arrangement has been made with one of the tenants to look after them and keep them clean.

N. 3 District.

The back to back houses in this District consist of Nos. 1 to 13 Moss Street, and the corresponding houses Nos. 2 to 14 Kirkham Street. These are large three storied dwellings, and if opened through would be too large, with the inevitable result that they would become occupied by numerous families.

Underneath are cellars, which have through ventilation, comply with the requirements for cellar dwellings, and are occupied by single couples, chiefly old people. A stack of water-closets at the end of the row of houses provides sufficient accommodation.

No. 4 District.

In this District are the houses forming Melling's Yard, the inspection of which gave rise to the formation of the Sub-Committee. They comprise a row of dwellings on one side of a yard running from Friargate—upon which it opens by a narrow lobby—to George's Road.

Opposite the houses are St. George's Church and Churchyard. The houses are small, but have through ventilation, and a stack of Mc. Farlane's closet has been provided. This latter is in bad repair, and the owner, through his agent, makes the proposals contained in the following letter, which I advise you to accept. The pavement of the yard is in defective condition, but this matter is at present occupying the attention of the Streets and Buildings Committee :—

4, Butler's Court, Fishergate,

Preston, July 15th, 1905.

To the Chairman of the Sanitary Committee.

Dear Sir,

The closets in Melling's Yard were altered to meet your requirements about two or three years ago, and repairs have been done frequently since, but as I understand from the Sanitary Inspector that something more will have to be done, I purpose putting divisions up so as to make them into four separate closets, with doors and keys for the tenants, and to put the roof in order. One of the tenants is willing to look after them, for which I intend to pay him monthly. I trust this may meet with your approval.

The present holder of the property, a man and his wife, have only a life interest in it, one is 82 years of age, and the other 78. Their circumstances are very limited, and the first named is in a feeble state of health.

Would you kindly bring this letter before the Committee.

Yours truly,

G. Whittaker,

Nos. 5 and 6, and 10 and 11 Back William Street are small houses at the end of two lobbies leading off William Street. These houses are provided with water-closets, but at present the yards are unflagged.

Four houses in Paradise Street open each from the side of a lobby, with other houses at the back also opening from the same lobby. There are large yards with water closets.

Five houses, Nos. 130-138 Manchester Road, form a square block with No. 2 Silver Street, and Nos. 2 and 3 Dickson's Court.

These houses have through ventilation, and in the yard between them is contained a stack of six water-closets and an ashpit. These water-closets are also used by the tenants of the houses in the adjoining block, formed by Nos. 3 and 4 Silver Street, 4, 5, and 6 Dickson's Court, and 1, 2, and 3 Dickson Street.

The houses in this last named block are built back to back, and so have no through ventilation.

The six closets are sufficient in number for the occupants of all the above named houses, but are at a somewhat inconvenient distance for those living in Dickson's Street. A way out of the difficulty would be the erection of another closet at the end of Dickson Street, which is a cul-de-sac. The back to back houses are necessarily small, but there is the redeeming feature of a good open space in the neighbourhood. The yard requires repairing, and, if the streets are public, the Streets and Buildings Committee should deal with the defective condition of the road and footpaths.

14 Duke Street and 1 and 2 Princes Street. The yard common to these houses requires flagging, and the walls having been partially pulled down, must be repaired.

63 Back Manchester Road is a small house at end of lobby. This house is let off to small families.

19, 7, and 7 Bk. Walton Street are small houses, with occupants ranging from one to three in number.

2 B Avenham Road. A small house standing by itself and approached by lobby from Avenham Road. This is occupied by two persons, and has its own W.C.

In Seed Street (West) are five houses of which 4 have no yard, but which join with three houses in Back Seed Street at the use of a block of three water-closets and an ashpit, these latter being situated in Back Seed Street. I recommend as the best way of dealing with this difficulty that one of the Seed Street houses should be pulled down and the space given up for a yard, to contain water-closets, and to be used in common by the tenants of the remaining houses. As there are two owners to 14 and 15, and 16 and 17, it may be necessary—unless they can come to some agreement—that each should pull down one house. The fifth house, No. 18, has its own water-closet and has ventilation by means of a perforated brick in the kitchen wall. This should be converted into a window capable of being opened. The block of closets in Back Seed Street and the Ashpit—which are at present in an unsatisfactory condition—could then be remodelled and improved.

Two houses and two back houses in Simpson Street are small but have three water-closets in the yard. This property receives the direct attention of the owner, and is kept in good condition.

Hanson's Square, of Kendal Street. This is practically a small court, leading off another court, approached by a lobby from the front street. None of the houses are back to back, and the closets are all contained in the yard at the back of the inner court. I advise the erection of two water-closets in the first court, the repairing of the flagging, and the abolition of a stable and offensive manure heap. This will give room for the erection of an additional couple of closets in connection with the existing block.

H. O. Pilkington,

Medical Officer of Health

19th September, 1905.

Acting upon instructions received from the Health Committee in September, I drew up the following poster, dealing with the evils resulting from the excessive use of Alcohol :—

CORPORATION OF PRESTON.

PHYSICAL DETERIORATION AND ALCOHOLISM.

The Report of the Committee, appointed by the Government to consider the above subject, has, by command of His Majesty, presented to Parliament the following statements :—

The abuse of Alcoholic Stimulants is a most potent and deadly agent of physical deterioration.

Alcoholic persons are especially liable to Consumption and all inflammatory disorders.

In abstinence is to be sought the source of muscular vigour and activity.

The Lunacy Returns show that as a result of excessive drinking, there is a large and increasing number of persons of both sexes admitted to the Asylums.

The following facts are recognised by the Medical Profession, and are now published in order to carry out the recommendations of the Committee, and to bring home to men and women the fatal effects of Alcoholism on physical efficiency :—

(1) Alcoholism is a chronic poisoning, resulting from the habitual and excessive use of Alcohol (whether as Spirits, Wine, or Beer) although this may not go so far as drunkenness.

(2) The abuse of Alcohol not only weakens a man's physical condition, and saps his strength, but also acts upon his nervous system, weakening his self control, exciting his passions, and so leading to crimes, of which numbers are committed under its direct influence.

(3) It is a fruitful cause of accidents, in which not unfrequently, through the fault of an individual, the lives of many persons are endangered or destroyed.

(4) It is not only the direct cause of many fatal diseases, but it also aggravates, and adds to the danger of all acute illnesses, especially those of an Infectious nature, which latter are well known to be especially fatal in alcoholic subjects.

(5) The children born of drunken parents are frequently feeble from birth, and inherit a direct tendency to many forms of physical and mental disease.

(6) Too frequently the home of the confirmed drunkard may be recognised by its dirt and squalor, his family are neglected, his children ill-fed and untaught, whilst his own life, drifting from bad to worse, not seldom ends in a premature grave.

(7) **In short, Alcoholism is a most terrible enemy to personal health, to family happiness, and to national prosperity.**

WILLIAM MC.KUNE MARGERISON, Mayor.
H. O. PILKINGTON, Medical Officer of Health.

September 19th, 1905.

With some few alterations, it was framed upon the lines of one already issued by the Town Council of Woolwich.

In the form of a large placard, it was posted, and after a short interval, reposted upon the hoardings and posting stations throughout the town, whilst a smaller placard was distributed and affixed at all Places of Worship, Factories, Workshops, and Common Lodging Houses. Later on, and in order thoroughly to complete the work, the same information was printed in leaflet form, and was distributed to every house in the Borough. Naturally the action of the Committee was productive of much comment, and some adverse criticism, but since the subject matter dealt only with the Abuse and Excessive use of Alcohol, no one could deny the truth of the statements made, or the necessity for the reform which they advocated.

Some of the work done by the Health Visitors has already been referred to in speaking of the mortality from Diarrhœa and Measles, and a Summary of the work done during the whole year will be found in Table No. 12.

All the Births have been visited, i.e. all those occurring in localities where it would appear likely that a little assistance and instruction, given with kindness and tact, would be to the interest of mother and child.

These visits would probably do more good if paid at a shorter interval after the birth of the child, since many of these children having been born prematurely, or with constitutions weakened through the mother working up to the time of parturition, naturally require care and judicious treatment from the first moments of their lives.

This would mean earlier information of the Birth, which in turn would necessitate a reduction in the time—at present six weeks—which may elapse between Birth and Registration. Since such early Registration could no longer be done by the mother, and would in many cases devolve upon the father, after working hours, it might involve a change in the hours of Registration, but the matter is one intimately connected with Infantile Mortality, and is receiving the attention of those interested in this subject.

The results obtained by the Health Visitors, in pursuance of the various branches of their work, is satisfactory and encouraging, though naturally varied in degree.

In some cases an immediate improvement in the condition of the house is obtained, but subsequent visits can alone show whether this is likely to be maintained, or is only of a temporary character. Still the very fact that someone in authority takes an interest in her

trials and condition, acts as an incentive to the often over tasked house-mother, and leads to an improvement in the condition of the household under her charge.

I have referred to the duties of the Health Visitors in connection with the minor Infectious diseases affecting children attending the Public Schools, but in addition to all this, they have enquired into special complaints of household neglect, have distributed cards dealing with the Management of Infants, and at times have assisted the Inspector of Food and Drugs in his purchases of samples for analysis.

The work done by the last named official is shown in Tables 13, 14, and 15, from which it will be seen that 270 samples have been submitted for analysis, a number in excess of that for any previous year. A large proportion of these Samples—88—consisted of Milk, and in 11 instances these showed a per centage of fat below the recognised standard. Four cases were summoned, of which two were dismissed, and two resulted in respective fines of 5s. and 20s. with costs. The remaining 7 were cautioned by letter from the Town Clerk. The standard of 3 per cent. butter fat is by no means an excessive one, and the purchaser who asks, and pays, for milk has a right to expect that the article he obtains will show that amount. The farmer, for his own protection, if he has any doubt on the matter, should ascertain whether or not his milk contains the necessary 3 per cent., at any rate he is responsible for what he offers for sale, and the public has a right to demand every care, especially in the case of an article so essential to the health and well-being of young children. Whether or not it be owing to the leniency lately shown in dealing with cases of this kind, there is no doubt that, both here and in other parts of the country, the quality of milk has depreciated. And whilst dealing with this subject, I would plead for greater cleanliness on the part of farmers, dairymen, purveyors, and consumers of milk.

Probably but few people have a really correct idea as to the cleanliness of the cows, of the shippons in which they are kept, and of the people who milk them. Of late a good deal of improvement has been effected in the condition of the Dairies and Cowsheds within the town, and advantage is taken of every change of ownership or tenancy to obtain still further improvements. But these furnish only a small part of the milk supply of the town, by far the greater part coming from the country farms outside the Borough boundaries, over which this Health Authority has no direct control. But if even there could be guaranteed a perfectly pure and clean supply of milk to the customers' houses, very often it would there suffer contamination before being used. Although known to be an article so liable to absorb bad smells, dirt, and the germs of disease, little or no care is taken to protect it; on the contrary it is allowed to remain uncovered, in dirty vessels, near the kitchen sink, and in contact with dirty linen or other malodorous articles. Much of the Diarrhœa and Diatetic

diseases so prevalent amongst infants might be prevented, if greater care were exercised over the milk in the course of its transit from cow to consumer.

One sample of Coffee was adulterated with no less than 40 per cent. of Chicory, and the vendor was fined 10s. and costs. A similar fine was imposed for selling Whisky reduced to 7·5 below the statutory strength. The vendors of two samples of Liquorice Powder, one of which was adulterated with ground olive stones, and the other with a mixture of olive stones and maize starch, were each fined 5s. and costs.

Meat to the amount of 109,564 lbs. was condemned as unfit for food, and afterwards destroyed. The whole of this was voluntarily submitted to the judgment of the Inspector, and therefore in no instance was it necessary to obtain a Magistrate's order for destruction, or to institute further proceedings.

Throughout the year no case occurred in which it was necessary to take action under the Contagious Diseases (Animals) Act.

The Canal Boats Acts have been carried out, and the necessary inspections made of all boats coming up to the Canal Wharf. The following Report dealing with this subject was in the early part of the present year forwarded to the Local Government Board :—

County Borough of Preston.

CANAL BOATS ACTS, 1877 AND 1884.

The following Report for the year 1905, deals with that portion of the Preston, Lancaster, and Kendal Canal, situated within the boundaries, and coming under the jurisdiction, of the above-named Authority.

The work of examination and supervision of the boats has been carried out by Inspector Henry Livesey, upon the same terms as in previous years, no special remuneration being provided for this portion of his sanitary duties.

The number of boats upon the Register remains the same—34—as last year, no new boats having been registered, and no certificate cancelled, during the year.

All the boats coming to Preston, whether registered here or by other authorities, have at various times during the year been visited and examined.

Upon 13 of the boats one or more infringements of the Regulations were found to be existing, the total number of infringements being 15, the exact nature of which is shown in the appended supplement. In dealing with these, notice, either verbal or in writing, was at once complied with ; so that in no instance was it necessary to have recourse to legal proceedings.

Notices, dealing with the condition of 3 boats, and served by other Registration

Authorities, have been investigated upon the arrival of these boats in Preston, and the notice forms, duly signed, have then been returned to the office from which they were issued.

The only case of Infectious disease was that of a child of school-going age, which was found to be suffering from Whooping Cough, and at the request of the Inspector was at once removed from the boat.

In addition to the usual Statistical Supplement I append the following short Table, drawn up by Inspector Livesey, showing the manner in which the Boats are occupied, and giving details as to inspection :—

	1897	1898	1899	1900	1901	1902	1903	1904	1905
No. of Inspections ..	143	61	65	38	68	96	103	105	113
Males in Occupation ..	52	45	44	48	88	104	113	140	142
Females do. ..	18	23	20	26	40	48	38	64	71
Children do. ..	18	28	21	32	48	46	29	53	68

In conclusion the general condition of the boats, and their occupants, has been very satisfactory.

H. O. Pilkington,
January 26th, 1906. Medical Officer of Health.

Throughout the year, as well as especially during the outbreak of Small Pox, the Common Lodging Houses have received attention ; and, wherever possible, their condition has been improved. The owners of several were summoned for offences against the Bye-laws—chiefly for overcrowding, and non-separation of the sexes—and fines varying in amount from 2/6 to 10s. together with costs were imposed.

In my last Annual Report I referred to the Midwives Act, 1902, which was then coming into operation, but about which there was then little to be said.

At the beginning of 1905, the names of 56 Midwives were enrolled upon the Register, and this number was increased by one, that of a nurse coming into the Borough from another district. In accordance with the requirements of the Act, in the month of January, 50 gave notice of their intention to practice within the Borough area, six failing to do so owing to sickness. The number has been reduced by the deaths of two during the past year, and by two others giving up practice owing to failing health. The number at present upon the Register is 53, of whom 5 hold certificates from Institutions recognised by the Central Board, and 48 base their claims to registration upon the fact that they were in actual practice prior to the passing of the Act. The whole 53 have given notice of their intention to practice

during the present year, and all these have attended before me at the Health Office, and have produced for inspection their Registers, Case Books, instruments, and other necessary appliances. Such an inspection, however, admits of preparation, and in future I propose to carry it out more in the line of a surprise visit. These Midwives vary very much in character, experience, and education ; some being absolutely illiterate, whilst others perhaps with less actual experience, have had more education, and some scientific training. I am satisfied that in all cases the chief points to impress upon them are, strict cleanliness in everything connected with the lying-in chamber, the advisability of non-interference with the natural course of labour, and the importance of at once obtaining medical assistance in difficult, or even doubtful, cases.

In 32 instances during the year, reports were received from Midwives with regard to some abnormality in the confinements which they were attending. Most of these referred either to cases of difficult or prolonged labour, or to children who were still-born. With regard to the last named class of cases, there would seem to be a necessity for more precise information, or for some enquiry into the attendant circumstances, especially at a time when there is a general disposition to avoid the trouble and expense of large families.

An important step in the Sanitary history of the town has been the commencement of the erection of the Isolation Hospital, the want of which has been felt for so many years, and has been adverted upon in so many previous Reports. The tender for the building was accepted in March, in June the Local Government Board held an enquiry—unopposed—for the borrowing of the necessary £20,000, after which the building was commenced, the foundation stone being laid on August 10th by Dr. D. W. Brown, Chairman of the Health Committee. The Hospital has been designed by Mr. Cookson, Borough Surveyor, and consists of Porter's Lodge, Administrative Block, four separate Pavilions, Laundry, Stables, Mortuary, and other offices. It stands upon $7\frac{1}{2}$ acres of ground, on the Eastern side of Deepdale Road, and to the North of Holme Slack Lane, and will afford accommodation for 54 patients, besides the necessary Staff.

A Steam Disinfector has been erected at the Corporation Yard, near the Electric Generating Station, to supply the place of the Hot Air Stove, which for over 30 years had done useful service. Two Horse Vans—one to be used for the collection of infected articles, the other for their return after disinfection—are now required to take the place of the vans at present worked by the men engaged in disinfection.

The general condition of the town has been improved by the flagging and paving of a considerable number of main streets and back roads. Although the arrangement and execution of this work comes under the Department of the Borough Surveyor, the drawing

up and service of the necessary notices is done by the Sanitary Inspectors, and for this reason, and because it plays an important part in the sanitation of a town, I have referred to it in the present Report.

Notices to "Sewer, Level, and Pave" to the number of 1,453 were served, and the amount of Paving and Flagging accomplished was respectively 49,250 and 17,500 sq. yds.

Throughout the year the Water Supply of the town was abundant, and in all respects suitable for potable and domestic purposes. A recent examination shows that it continues to be of good quality, and free from germs of a dangerous or doubtful nature.

In conclusion, and because it has such an important bearing upon health, and especially upon the future health and well-being of a town, I would refer to the progress that has been made in Education, more especially to that advance in the education of young girls by which they are taught how to cook, wash, nurse, clean up, &c., in short by which they are taught how to take their places, and efficiently to do their duty as wives and mothers in the future. One good feature of this form of education, especially in the extended scheme now in preparation, is that the girls will be taught the various duties under the same conditions as in after life they will probably be called upon to practice them. Thus a girl will be shown how to clean up a cottage house, or how to prepare a dinner for a working class family, from the materials, and with the appliances, likely to be found in a working class home. In the course of a few years such instruction must have its effect, and must exercise a wide and beneficial influence over the health and comfort of a large section of the population.

Not unlikely the result may be more immediate, because the child that is proverbially ready to show its elders how to obtain nutriment from the uncooked egg will probably be equally eager to impart to its mother anything which it may have learnt of the culinary art. So that with houses and yards kept perfectly clean, with food more wisely chosen and more skilfully prepared, with infants fed, nursed, and brought up, not according to ancient error, but in compliance with the laws of health, one may confidently expect to see a town more prosperous, and a people more healthy, happy, and long-lived.

H. O. PILKINGTON,

Medical Officer of Health.

PORT SANITARY.

The vessels entering the Port have been regularly and carefully inspected, and their number and condition are set forth in Table No. 16. A greater number of inspections, both of Steamers and Sailing Vessels, have been made than in former years, the increase being most apparent with regard to the first named.

Several vessels coming from Hamburg, the Baltic, or other ports from which there was a possibility of Plague, Cholera, &c., being conveyed, were inspected, before coming up the river, in the Boghole, Southport, whilst waiting for a suitable tide or for the purpose of being lightered.

In 147 instances, defects of various kinds were found to be existing, but upon representation from the Inspector these were remedied, without the necessity for a formal Notice. In character they were of the kind usually met with; dependent in some instances upon structural defects, in others upon misuse, or want of proper care on the part of those in charge. A dirty condition of Water Tanks or Provision Lockers must be a source of danger to all on board, while the space in the forecastles is, at the best, so limited, that it is essential that they should be kept as clean, and as well lighted and ventilated as possible.

No case of disease of an infectious nature was found upon any of the vessels entering the river or dock; such cases as were reported, or otherwise came under observation, proving to be of an ordinary non-infectious type. A case of Small Pox occurred in one of the crew of "The Walter Bibby" Dredger, at the time engaged by the Liverpool Corporation, and working in the Queen's Dock. The man was in Preston when he developed the disease, and was removed to Holme Slack Hospital, where he made a good recovery. Information was forwarded to the Liverpool Health Authority, and as a result the crew of the Dredger were re-vaccinated, and their quarters on board were disinfected. No further case is reported to have occurred amongst them.

Additional sanitary accommodation has been provided to meet the requirements of the increased number of labourers engaged in unloading timber and other work at the Dock and River Side.

Though the Hospital, erected for Cholera purposes, near the entrance to the Dock, has never been used, it has been kept clean and ready for immediate service, and sufficient repairs have been carried out during the past years to keep it in serviceable condition.

H. O. PILKINGTON,
Medical Officer of Health.
Port Sanitary Authority.

TABLE No. 1.

Number and Causes of Deaths at different Ages, for the 52 weeks ending 30th December, 1905.

Cause of Death.	Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and over.	Total.	Corresponding year 1904.	Corresponding year 1903.	Corresponding year 1902.	Average for the past six years.
Small Pox	..	..	..	1	..	..	1	7	2	..	1·50
Fever	..	1	5	4	7	..	17	29	35	21	31·63
Scarlatina	..	7	1	..	..	..	8	8	14	20	28·50
Measles	9	67	8	..	..	..	84	87	89	54	70·50
Diarrhœa	102	24	1	..	2	3	132	141	103	154	182·50
Whooping Cough	34	42	..	..	..	..	76	30	61	25	45·00
Diphtheria	3	10	3	1	..	..	17	21	23	17	26·00
Croup	1	9	2	..	..	..	12	10	14	15	16·64
Consumption	..	..	9	28	86	2	125	124	110	115	126·50
Bronchitis	50	31	2	2	68	77	230	278	209	270	283·16
Inflammation of Lungs....	20	24	5	10	36	10	105	121	119	120	134·17
Teething, Premature Births and Debility	261	46	4	..	..	..	311	415	397	386	474·13
Old Age	..	..	..	..	5	83	88	121	110	105	104·14
Violence, &c.	6	10	5	7	41	6	75	57	64	55	58·86
Other Diseases	4	4	33	30	374	180	625	642	605	641	647·57
Total.....	490	275	78	83	619	361	1906	2091	1955	1998	2230·80

TABLE No. 2.

Number and Causes of Deaths in each Month of the Year ending 30th December, 1905.

Cause of Death.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Small Pox	...	...	..	...	...	1	...	...	...	...	...	...	1
Fever	...	1	3	..	..	1	...	1	2	2	3	4	17
Scarlatina	..	...	1	...	...	..	...	2	2	1	2	...	8
Measles	...	...	...	...	...	...	...	...	...	3	37	41	81
Diarrhœa	2	...	...	2	2	1	10	65	41	9	...	...	132
Whooping Cough	14	16	15	4	10	8	2	4	3	...	...	...	76
Diphtheria	...	2	2	...	...	3	1	4	...	2	2	1	17
Croup	1	1	2	4	...	...	..	1	1	1	...	1	12
Consumption	13	12	9	9	14	13	11	9	9	8	12	6	125
Bronchitis	45	30	29	15	24	11	4	7	9	15	15	26	230
Inflammation of Lungs	9	14	4	7	11	7	6	7	5	2	16	17	105
Teething Convulsions, &c	32	27	36	28	25	20	19	27	27	23	17	30	311
Old Age	3	13	10	6	9	11	3	5	3	4	7	14	88
Violence, &c	4	3	11	4	5	10	9	...	9	3	10	7	75
Other Diseases	48	64	44	48	76	49	35	54	34	45	72	56	625
Total	171	183	166	127	176	135	100	186	145	118	193	206	1906

TABLE No. 3.

Number and Causes of Deaths in each Ward for the 52 weeks ending 30th December, 1905.

Wards.	Small Pox.	Fever.	Scarlatina.	Measles.	Diarrhœa.	Whooping Cough.	Diphtheria.	Croup.	Consumption.	Bronchitis.	Inflammation of Lungs.	Teething, Premature Births, & Debility	Old Age.	Violence, &c.	Other Diseases.	Total Deaths.	Rate per 1000 per annum.	Total Births.	Rate per 1000 per annum.	Population.
St. John's Ward ..	..	1	1	3	17	3	1	1	13	34	9	47	7	4	70	211	18·05	314	26·87	11685
Avenham Ward ..	..	..	..	1	7	..	..	1	6	13	3	14	7	9	46	107	14·30	141	18·84	7482
Christ Church Wd.	..	1	..	4	11	3	3	..	10	23	7	22	4	3	46	137	15·34	242	27·11	8927
Ashton Ward ..	..	1	..	1	4	3	2	1	5	13	9	16	6	6	41	108	13·77	220	28·07	7838
Maudland Ward ..	..	2	..	3	14	3	..	..	7	17	8	23	9	3	34	123	15·47	231	29·06	7948
St. Peter's Ward..	..	2	..	11	24	6	1	2	15	27	6	28	8	2	60	192	17·61	372	34·13	10900
Moor Brook Ward	..	1	1	13	8	3	2	..	10	14	9	22	5	1	31	120	12·97	241	26·05	9250
Park Ward ..	..	3	1	26	16	18	2	2	13	26	16	43	13	5	63	247	16·43	456	30·34	15030
Trinity Ward ..	..	1	..	12	13	9	1	3	17	24	16	24	12	6	71	209	18·33	304	26·66	11400
Deepdale Ward ..	..	1	2	6	8	14	..	1	11	17	7	29	6	..	49	151	16·46	280	30·53	9170
Ribbleton Ward ..	..	3	1	2	3	5	1	..	9	11	7	22	7	5	35	111	12·80	247	28·49	8670
Fishwick Ward ..	..	1	2	2	6	9	4	1	4	8	5	16	3	1	38	100	13·47	208	28·03	7421
Gaol, Infirmary, &c.	1	..	..	..	1	..	..	..	5	3	3	5	1	30	41	90	..	3		
Total.....	1	17	8	84	132	76	17	12	125	230	105	311	88	75	625	1906	16·47	3259	28·16	115721

Death Rate per annum, per 1000 of the Population for the Year 16·47
Average Death Rate per annum, per 1000 of Population, for six years.....19·32
Do. Do. 10 years.....19·25
Death Rate per annum, per 1000 of Population, of Children under one year .. 4·23
Per centage of Deaths under one year to total deaths for the Year 25·70
Do. Do. for 10 Years 32·27

TABLE No. 4.

Number of Deaths in each Ward during each Month of 1905.

WARDS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
St. John's Ward	12	25	20	17	21	19	7	26	16	9	15	24	211
Avenham Ward	10	16	8	9	11	6	4	10	5	6	8	14	107
Christ Church Ward	15	9	11	6	12	10	9	16	11	11	12	15	137
Ashton Ward	11	16	12	7	8	4	6	8	9	8	11	8	108
Maudland Ward	16	10	17	5	6	10	5	10	10	8	7	19	123
St. Peter's Ward	16	17	15	9	18	14	14	26	19	15	12	17	192
Moor Brook Ward	11	9	11	8	6	8	4	10	10	10	15	18	120
Park Ward	17	22	20	24	21	15	16	18	17	17	36	24	247
Trinity Ward	18	19	20	14	22	14	12	25	7	10	29	19	209
Deepdale Ward.....	15	14	14	12	13	19	6	12	11	5	11	19	151
Ribbleton Ward	8	11	7	10	16	6	6	6	11	5	13	12	111
Fishwick Ward	8	10	4	3	9	4	7	11	8	6	11	9	100
Gaol, Infirmary, &c.	4	5	7	3	13	6	4	8	11	8	13	8	90
Total	171	183	166	127	176	135	100	186	145	118	193	206	1906

TABLE 1A.

Vital Statistics of Whole District during 1905 and Previous Years.

Year.	Population estimated to Middle of each Year.	Births.		Deaths under 1 Year of Age.		Deaths at all Ages Total.		Total Deaths in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District. (Workhouse).	Deaths at all Ages. Nett.	
		Number	Rate*	Number	Rate per 1,000 Births registered	Number	Rate*			Number	Rate*
1895	112,638	3702	32 95	927	249	2528	22·44	81	161	2689	23·87
1896	113,864	3673	32·25	760	204	2191	19 24	58	151	2342	20·56
1897	115,103	3687	32·03	954	263	2687	23·34	63	166	2853	24·78
1898	116,356	3559	30·58	812	221	2107	18·10	81	138	2245	19·29
1899	117,622	3492	29 68	889	255	2492	21·18	85	181	2673	22·72
1900	118,902	3410	28·67	814	236	2636	22·16	66	200	2836	23·85
1901	113,117	3418	30·21	737	218	2213	19·56	75	149	2362	20 88
1902	113,766	3278	28·81	618	188	1998	17·56	61	144	2142	18·82
1903	114,404	3453	30 18	541	156	1955	17·08	66	135	2090	18·26
1904	115,055	3314	28·26	609	183	2091	17 83	79	149	2240	19·10
Averages for years 1895-1904	115,082	3498	30·36	766	217	2289	19·84	71	157	2447	21·21
1905	115,721	3259	28·16	490	150	1906	16 47	90	169	2075	17 93

* Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) } 3,721.

Total population at all ages.....112,982
Number of inhabited Houses 24,194
Average number of persons per house... 4 66
} At Census of 1901.

TABLE 2A.

Vital Statistics of separate Localities in 1905 and previous years.

Localities.	1901				1902				1903				1904				1905			
	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered	Deaths at all Ages.	Deaths under 1 year.
St. John's Ward ...	11409	378	212	65	11495	354	217	71	11555	373	193	59	11630	346	232	64	11685	314	211	62
Avenham Ward	7363	132	110	22	7394	101	82	13	7422	135	91	16	7462	141	116	14	7482	141	107	19
Christ Church Ward	8753	254	159	48	8787	239	147	42	8837	269	137	48	8887	271	123	48	8927	242	137	35
Ashton Ward.....	7688	210	98	33	7728	205	109	26	7758	231	110	32	7798	235	135	39	7838	220	108	21
Maudland Ward ...	7783	213	130	50	7823	238	138	44	7873	227	125	38	7908	224	146	49	7948	231	123	39
St. Peter's Ward ...	10597	352	213	67	10655	324	176	61	10735	383	201	63	10820	346	180	64	10900	372	192	65
Moor Brook Ward...	9080	315	183	78	9119	264	138	47	9167	258	153	42	9201	239	156	44	9250	241	120	33
Park Ward..... ...	14592	492	290	124	14701	482	265	91	14791	490	280	81	14880	447	271	80	15030	456	247	76
Trinity Ward	11098	338	243	66	11185	319	249	83	11267	318	202	50	11330	323	218	71	11400	304	209	46
Deepdale Ward	8986	272	156	62	9020	284	149	51	9060	281	129	30	9120	301	187	55	9170	280	151	39
Ribbleton Ward.....	8506	266	201	68	8547	248	144	54	8597	275	159	56	8630	212	139	37	8670	247	111	27
Fishwick Ward	7262	195	143	50	7302	196	123	35	7324	212	109	24	7380	227	109	39	7421	208	100	28
Public Institutions...	...	1	75	5	...	5	61	4	...	1	66	2	...	2	79	5	...	3	90	...

TABLE 3A.

Cases of Infectious Disease notified during the Year 1905.

Notifiable Disease.	Cases Notified in whole District.							Total Cases Notified in each Locality.													
	At all ages.	At Ages—Years.						St. John's Ward.	Avenham Ward.	Christ Church Ward.	Ashton Ward.	Mandland Ward.	St. Peter's Ward.	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward	Ribbleton Ward.	Fishwick Ward	Gaol, Infirmary, &c.	Removed to Hospital.
		Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards.														
Small Pox	80	...	1	20	14	43	2	5	2	1	9	2	18	7	23	7	3	3	...	...	73
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	86	3	45	23	5	10	...	12	7	4	8	4	7	5	14	5	8	2	10	...	...
Membranous Croup ...	3	1	...	2	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...
Erysipelas	78	1	1	8	7	55	6	9	5	4	2	5	10	6	7	4	8	9	9	...	...
Scarlet Fever	230	1	98	123	4	4	...	30	14	13	13	2	8	4	24	13	41	39	29	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	105	...	15	38	15	37	...	6	1	7	6	10	10	7	14	11	16	15	2	...	...
Relapsing Fever... ...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever... ...	14	...	2	6	3	3	...	...	...	...	...	...	2	...	6	5	1	...	...	...	...
Puerperal Fever... ...	10	...	...	...	4	6	...	2	...	...	...	2	1	...	3	...	...	1	1	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	606	6	162	220	52	158	8	64	29	29	38	25	57	30	91	45	77	69	52	...	73

TABLE 4A.

Causes of, and Ages at, Death during Year 1905.

Causes of Death.	Deaths at the subjoined ages, whether occurring in or beyond the District.							Deaths in Localities at all ages.												Deaths in Public Institutions.	Deaths in Workhouse.
	All Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	St. John's Ward.	Avenham Ward.	Christ Church Ward.	Ashton Ward.	Maudland Ward.	St. Peter's Ward.	Moorbrook Ward.	Park Ward.	Trinity Ward.	Deepdale Ward.	Ribbleton Ward.	Fishwick Ward.		
Small Pox	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Measles	90	9	73	8	...	...	...	3	1	4	1	3	11	13	26	12	6	2	2	...	6
Scarlet Fever	8	1	6	1	...	...	...	1	...	...	...	...	...	1	1	...	2	1	2	...	...
Whooping Cough	76	35	40	...	1	...	...	3	...	3	3	3	6	3	18	9	14	5	9	...	...
Diphtheria and Membranous Croup	17	3	8	4	2	...	...	1	...	3	2	...	1	2	2	1	...	1	4	...	...
Croup	13	1	10	2	...	...	...	1	1	...	1	...	3	...	2	3	1	...	1	...	...
Fever (Typhus)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever (Enteric)	17	...	2	4	4	7	...	1	...	1	1	2	2	1	3	1	1	3	1	...	...
Fever (Other continued)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	33	1	1	3	2	14	12	2	2	2	5	1	1	1	4	4	3	6	2	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...
Diarrhœa	134	103	25	1	1	1	3	17	7	11	4	15	25	8	16	13	8	3	6	1	...
Enteritis	9	5	1	1	...	1	1	1	1	1	...	1	1	1	1	...	...	1	1	...	...
Puerperal Fever	7	...	...	...	2	5	...	2	1	...	...	1	1	...	1	...	...	...	1	...	...
Erysipelas	3	1	...	...	...	2	...	...	...	...	...	...	2	...	..	...	...	...	...	...	1
Other Septic Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis	144	1	2	7	32	98	4	13	6	10	5	6	15	11	13	18	11	9	4	5	18
Other Tubercular Diseases	79	36	20	5	9	9	...	16	3	6	3	6	3	8	9	9	8	3	2	1	2
Cancer, Malignant Disease	88	...	...	...	...	54	34	...	3	6	9	3	6	4	9	8	10	7	3	6	14
Bronchitis	242	49	32	2	3	72	84	34	13	22	13	18	27	14	26	24	17	11	8	3	12
Pneumonia	112	21	23	4	9	41	14	9	3	7	9	7	6	9	16	16	7	7	5	3	8
Pleurisy	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism, Cirrhosis of Liver	28	...	...	...	...	25	3	6	7	4	...	1	1	1	1	4	...	...	1	1	1
Venereal Diseases	14	9	2	...	...	3	...	1	...	4	...	...	1	1	...	1	...	...	...	1	5
Premature Birth	74	74	...	...	...	...	..	13	5	3	7	8	7	3	5	6	9	5	3	...	...
Diseases and accidents of Parturition	12	...	...	...	3	9	...	1	...	2	...	3	1	1	...	...	2	...	1	1	...
Heart Diseases	177	2	1	7	7	102	58	23	9	10	8	8	22	8	16	23	11	10	10	9	10
Accidents	62	5	11	4	7	29	6	3	7	2	5	2	2	...	2	6	...	3	1	27	2
Suicides	15	...	...	...	2	13	...	1	2	1	1	1	...	1	2	...	...	2	...	3	1
Murder	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Old Age	119	...	...	...	...	5	114	7	7	6	6	9	7	5	13	12	6	7	3	1	30
All other causes	500	138	32	16	13	185	116	52	29	29	25	25	41	24	60	39	35	25	30	27	59
All causes	2075	495	289	69	98	675	449	211	107	137	108	123	192	120	247	209	151	111	100	90	169

TABLE 5A.

Deaths from stated Causes in Weeks and Months under One Year of Age during the Year 1905.

Cause of Death.	Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes:—																	
Certified	78	27	23	4	132	49	46	27	33	37	23	33	24	30	19	27	480
Uncertified	1	...	...	1	2	...	2	1	1	1	1	...	1	...	...	1	10
Common Infectious Diseases:—																	
Small Pox	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	5	9
Scarlet Fever	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Diphtheria: Croup	...	...	...	...	...	...	1	...	1	...	...	1	...	...	1	...	4
Whooping Cough	...	...	2	...	2	4	1	3	1	5	2	5	4	1	3	3	34
Diarrhœal Diseases:—																	
Diarrhœa, all forms	...	2	1	2	5	11	15	11	8	14	9	8	7	9	4	6	107
Enteritis (*not Tuberculous*)	...	...	...	...	...	1	...	...	...	1	1	...	...	2	...	...	5
Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...	2	5
Wasting Diseases:—																	
Premature Birth	54	10	4	2	70	2	1	...	...	1	...	...	...	...	...	...	74
Congenital Defects	5	1	2	...	8	...	4	...	...	1	1	1	...	...	...	1	16
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast Milk	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Atrophy, Debility, Marasmus	13	6	10	...	29	14	9	7	7	1	2	2	1	...	...	2	74
Tuberculous Diseases:—																	
Tuberculous Meningitis	...	1	...	...	1	...	...	1	1	...	...	1	...	2	1	2	9
Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	2	...	...	1	...	1	1	...	1	2	...	8
Other Tuberculous Diseases	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	3
Erysipelas	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Syphilis	...	1	1	...	2	2	1	1	1	...	...	...	...	...	...	...	7
Rickets	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Meningitis (*not Tuberculous*)	...	.	...	...	...	...	...	...	...	1	...	...	1	2	...	...	4
Convulsions	5	2	3	...	10	6	4	1	1	2	1	1	2	1	1	...	30
Bronchitis	...	1	...	...	1	3	4	1	7	6	4	5	5	5	3	5	49
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	...	...	...	1	1	4	2	2	3	3	1	3	...	20
Suffocation, overlaying	1	...	...	1	2	...	2	...	...	..	...	...	...	...	...	...	4
Other Causes	1	3	...	...	4	1	1	2	1	3	1	4	1	2	1	2	23
Murder	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Total	79	27	23	5	134	49	48	28	34	38	24	33	25	30	19	28	490

Population, estimated to middle of 1905	115,721
Births in the Year, Legitimate	3,095
Do. Illegitimate	164
Deaths from all Causes at all Ages	2,075

TABLE No. 5.

Birth Rate, Death Rate, and Analysis of the Zymotic and Tubercular Death Rates, in 39 of the largest English Towns, for the Year ending 30th December, 1905.

Name of Town.	Estimated Population 1905.	Birth Rate.	Recorded Death Rate,	Corrected Death Rate.	ZYMOTIC DEATH RATE.								Diarrhœa Death Rate per 1,000 Births.	Death Rate per 1,000 from Tuberculosis.	Deaths under one Year to 1,000 Births.
					Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough	Fever.	Diarrhœa.	Total.			
London	4,684,794	27·1	15·6	—	0·00	0·36	0 12	0·12	0 32	0·05	0·73	1·70	—	—	132
Croydon	147,704	26·4	12·7	13·0	0·00	0·16	0 07	0·17	0·21	0 03	0·35	0·99	13·4	1·50	96
West Ham	294,997	30·5	15·5	16·5	0·00	0·33	0·10	0·27	0·56	0 09	1·56	2·91	51·0	1·51	156
Brighton	127,183	23·0	13·5	—	0·00	0 03	0·01	0·04	0·08	0·01	0·37	0·54	—	—	101
Portsmouth	201,975	28·0	16·6	—	0·00	1·08	0·05	0·34	0·22	0·09	0·86	2 66	—	—	133
Norwich	116,741	27·2	16 5	15 8	0·00	0·01	0·01	0·21	0·11	0·07	1·16	1·57	42·6	1·92	174
Plymouth	116,000	25·6	16·8	—	0·00	0·09	0·26	0·14	0·06	0·07	0·80	1·42	—	—	136
Bristol	358,515	26·9	14·7	15 1	0·00	0·05	0 10	0·16	0·34	0 03	0·47	1·15	13·3	1·55	122
Wolverhampton	99,456	28·7	14·8	15·3	0·00	0·45	0·15	0·18	0·12	0·10	1·27	2·27	44·0	1·31	136
Birmingham ...	542,959	29·2	16 1	17·3	0 00	0 44	0·10	0·18	0·29	0·07	0·86	1·94	29·3	1·84	155
Leicester	228,132	25·8	13·4	14·3	0·00	0 23	0·15	0·04	0·21	0·04	0·92	1·59	35·5	1·73	146
Nottingham	251,671	26·5	16·6	17·4	0·00	0·91	0·07	0·19	0·24	0·09	0·75	2·25	28·3	1·67	155
Derby	122,207	25·5	15·0	14·3	0·02	0·37	0 08	0·19	0·17	0·08	0·60	1·51	24 0	1·30	151
Birkenhead	116,035	32·0	15·4	—	0·00	0·26	0·24	0·28	0·01	0·05	1 01	1·85	—	—	127
Liverpool	730,143	33·2	19·2	20 6	0·00	0·33	0·41	0·20	0·20	0·06	1·32	2·52	40 0	2·25	154
Bolton	178,111	25·1	15·4	17·4	0·00	0·51	0·02	0·09	0·04	0·19	1·01	1·86	40·3	1·57	166
Manchester	631,185	29 4	18 0	—	0 00	0·37	0 12	0 19	0·31	0·09	1·15	2·24	—	—	157
Salford	231,514	30 5	17·1	19 0	0·00	0·30	0·28	0·30	0·19	0·19	1·18	2·44	38·9	2·30	150
Oldham	140,225	24·3	18·8	18·1	0·03	0 46	0·32	0·08	0·41	0·08	0·70	2·08	—	1·47	150
Burnley	101,682	26 3	16·5	—	0·04	0·13	0·21	0·19	0 26	0·13	1·37	2·32	—	—	173
Blackburn	132,742	24·0	16·4	18·5	0·00	0·30	0·50	0·20	0·08	0·10	0·70	1·88	29·1	1·70	146
Preston	115,721	28·1	16·4	18·0	0·00	0·72	0·07	0·14	0 65	0 14	1·14	2·86	30 7	1·90	150
Huddersfield ...	94,899	23·8	16·9	—	0·00	0·05	0·12	0·12	0·18	0 18	0·49	1·14	20·0	1·75	119
Halifax	108,419	19·2	15·3	15·0	0 00	0·00	0 10	0·25	0 29	0·08	0·14	0·86	7·2	—	130
Bradford	286,799	21·0	15·1	15 3	0·02	0·04	0·15	0·28	0·35	0 07	0·52	1·43	24·6	1·53	144
Leeds	456.787	27·1	15·3	16·6	0 00	0·24	0·08	0·10	0·27	0·11	0 80	1·60	29·6	1·86	152
Sheffield	440,414	29·7	17·0	18·3	0·00	0·94	0·22	0·13	0·29	0·10	1·55	3·23	52·0	1·60	167
Hull	258,127	29·8	16 0	16·1	0·01	0 08	0·10	0·27	0 46	0 08	1·30	2·30	44·0	1·97	153
Sunderland	152,659	34·2	18·6	—	0 00	0·66	0·00	0·19	0 38	0·20	0·80	2·23	15 9	2 35	143
Gateshead	120,620	32·7	15·5	—	0·01	0·34	0·09	0·16	0·35	0·03	0 68	1·66	—	—	138
Newcastle	264,511	32·1	16·8	—	0·01	0·14	0·05	0·19	0 33	0·04	0·59	1·35	—	—	135
Cardiff	180,054	28·5	13·2	14·3	0·00	0·44	0·02	0·12	0·21	0·04	0·34	1·17	12·2	1·82	118
Swansea	96,384	31·9	16 6	17·7	0·00	0·50	0 10	0·20	0·06	0·05	0·46	1 36	15·3	2·13	130
Warrington	68,301	33·4	17·0	19·4	0·00	0·96	0 13	0·12	0 18	0·05	1·33	2·77	39·8	2·04	147
St. Helens	89,843	36 0	17 0	18·4	0·00	0·45	0·18	0·20	0·28	0·02	0·73	1·86	13·2	1·84	131
Stockport	98.320	27·1	18·6	17·2	0·00	0·18	0·07	0 07	0·34	0·09	1 40	2·15	47·9	1·29	167
Middlesborough	98.369	34·9	21·0	21·1	0·00	0·72	0·07	0·40	0·43	0·22	0·94	2·78	27 0	2·32	174
South Shields ...	109,360	32·0	16·1	17·0	0·03	0 21	0·05	0·21	0·58	0·21	0·54	1·83	16·8	1·71	145
Northampton ...	92,441	20·9	12·5	13·0	0·00	0·16	0·17	0·15	0 24	0·01	0·28	1·01	13·4	1·33	123

TABLE No. 6.

The estimated Population, Number of Births and Deaths Rates per thousand, and natural increase in the Borough, for each year since 1841.

Years.	Estimated Population.	No. of Deaths.	Death Rate per 1000.	No. of Births.	Birth Rate per 1000.	Natural Increase.
1841	51,000	1508	29·57	1974	38·70	466
1842	52,840	1550	29·33	1944	36·79	394
1843	54,680	1459	26·38	1975	36·12	516
1844	56,520	1380	24·42	2200	38·92	820
1845	58,360	1635	28·01	2293	39·29	558
1846	60,200	2189	36·36	2475	41·09	286
1847	62,050	2059	33·18	2268	36·59	209
1848	63 900	1550	24·26	2223	34·79	673
1849	65,750	1751	26·63	2403	36·55	652
1850	67,000	1745	25·81	2649	39·19	904
1851	69,450	2241	32·26	2803	40·36	562
1852	70,850	2284	32·23	2998	42·31	714
1853	72,250	2346	32·47	3072	42·51	726
1854	73,600	2013	27·35	3037	41·26	1024
1855	75,000	2557	34·10	3071	40·95	514
1856	76,400	2251	29·46	3151	41·24	900
1857	77.800	2131	27·39	3286	42·24	1155
1858	79,200	2545	32·13	3082	38·91	537
1859	80,600	2111	26·19	3399	42·17	1288
1860	82,000	2236	27·27	3381	41·23	1145
1861	82,985	2585	31·15	3626	43·69	1041
1862	83,231	2411	28·97	3522	42·32	1111
1863	83,477	2142	25·66	3388	40·57	1246
1864	83,686	2432	29·06	3422	40·89	990
1865	83,932	2708	32·26	3338	39·77	630
1866	84,178	2854	33·90	3535	41·99	681
1867	84,424	2608	30·89	3732	44·20	1124
1868	84,670	2798	33·04	3710	43·82	912
1869	84,916	2248	26·47	3434	40·44	1186
1870	85,162	2406	28·25	3486	40·93	1080
1871	85,427	2541	29·75	3438	40·24	897
1872	85,654	2294	26·78	3704	43·24	1410
1873	86,000	2899	33·71	3558	41·37	659
1874	86,000	2962	34·44	3582	41·65	620
1875	86,000	2581	30·01	3499	40·68	918
1876	86,600	2331	26·92	3623	41·84	1292
1877	87,000	2336	26·85	3601	41·39	1265
1878	87,300	2502	28·66	3697	42·35	1195
1879	87,600	2395	27·34	3403	38·83	1068
1880	88,000	2425	27·35	3475	39·49	1050
1881	96,524	2044	21·17	3489	36·14	1445
1882	97,656	2511	25·71	3785	38·76	1214
1883	98,564	2345	23·79	3576	36·28	1231
1884	99,481	2540	25·53	3745	37·64	1205
1885	100,406	2563	25·52	3868	38·52	1305
1886	101,340	2769	27·32	3961	39·08	1192
1887	102,283	2703	26·42	3870	37·83	1167
1888	103,234	2326	22·53	3823	37·03	1497
1889	104,194	3019	28·97	3912	37·63	902
1890	105,163	2726	25·92	3718	35 35	992
1891	107,864	2807	26·02	3830	35·50	1023
1892	109,038	2481	22·75	3686	33·80	1205
1893	110,225	2753	24·97	3809	34·55	1056
1894	111,425	2186	19·61	3545	31·81	1359
1895	112,638	2528	22·44	3702	32·95	1174
1896	113.864	2191	19·24	3673	32·25	1482
1897	115,103	2687	23·34	3687	32·03	1000
1898	116,356	2107	18·10	3559	30·58	1452
1899	117,622	2492	21·18	3492	29·68	1000
1900	118,902	2636	22·16	3410	28 67	774
1901	113.117	2213	19·56	3418	30·21	1205
1902	113.766	1998	17·56	3278	28·81	1280
1903	114,404	1955	17·08	3453	30·18	1498
1904	115,055	2091	17·83	3314	28·26	1223
1905	115,721	1906	16·47	3259	28·16	1353

TABLE No 7.

Per Centage of Deaths from Zymotic Diseases to Sickness reported during the Year ending December 31st, 1905.

Disease.	No. of Cases Reported.	No. of Deaths	Per centage
Small Pox	80	1	1·25
Typhoid Fever	105	17	16·19
Scarlet Fever	230	8	3·47
Diphtheria	86	17	19·77
Puerperal Fever.....	10	7	70·00
Erysipelas	78	2	2·56

TABLE No. 8.

Meteorological Observations for the Year ending 31st December, 1905.

Month.	Attached Thermometer.	Barometer.	Barometer corrected to 32 deg. Fahr.	Hygrometer		Temperature in Shade.		Earth Thermometer		Mean Daily Temperature.	Humidity Saturation.=100	Temperature of Town's Water.	Rainfall in inches.	Number of Deaths from	
				Dry Bulb.	Wet Bulb.	Maxi-mum	Mini-mum.	One Foot.	Four Feet.					Bronchitis.	Diarrhœa.
January	38·7	30·067	30·188	40·0	38·7	42·7	34·9	38·7	41·8	38·8	90	39·7	2·06	45	2
February ..	40·6	30·173	30·287	41·7	40·1	45·5	37·5	40·3	42·2	41·5	87	40·6	1·01	30	..
March.....	42·8	29·497	29·603	44·6	42·6	48·7	38·6	41·2	42·4	43·6	86	42·2	3·56	29	..
April	43·9	29·742	29·845	45·4	42·6	49·5	39·2	42·5	44·0	44·3	80	45·6	2·01	15	2
May.....	52·6	30·016	30·086	54·0	49·8	59·0	45·8	48·8	48·1	52·4	74	52·9	0·94	24	2
June.....	60·5	29·904	29·965	62·2	56·5	67·4	51·7	55·1	53·7	59·5	69	60·4	2·83	11	1
July	63·0	30·037	30·083	63·6	59·1	68·7	56·3	59·4	58 0	62·5	75	66·0	2·40	4	10
August	59·1	29·799	29·865	60·0	56·0	64·3	53·4	56·5 2 weeks	57·1 2 weeks	58·8	76	59·7	3·69	7	65
September ..	53·6	29·899	29·974	54·9	51·9	59·2	48‘8	54·7	55·9	54·0	82	57·0	2·41	9	41
October	44·6	30·013	30·112	45·7	43·4	50·7	39·6	..	..	45·1	85	49·2	3·07	15	9
November ..	41·4	29·549	29·672	43·2	42·0	45·8	37·7	..	..	41·8	91	43·5	4·40	15	..
December ..	42·2	30·044	30·152	42·7	41·8	45·2	38·9	..	..	42·0	92	42·4	0·72	26	..

TABLE No. 9.

Summary of Work done during the Year 1905.

	No. 1 District.	No 2 District	No. 3 District.	No. 4 District.	Total.
Number of Complaints received	289	783	251	928	2,251
Inspections of Dwelling Houses	1181	4095	3005	2931	14,212
,, Infected Houses	491	611	213	391	1,706
,, Lodging Houses	100	1072	145	4740	6,057
,, Cellars	46	82	109	404	641
,, Canal Boats	...	...	...	113	113
,, Vans and Tents	6	108	52	179	345
,, Schools	12	63	36	210	321
,, Cowsheds, Dairies, and Milkshops	341	98	175	302	916
,, Slaughter Houses	78	77	42	33	230
,, Markets	...	197	35	612	844
,, Ashpits and Yards	3253	3775	3160	4383	14,571
,, Drains	4346	4831	3205	4459	16.841
Re-Inspections	3481	2862	2160	1245	9,748
Circular Letters sent	142	88	5	179	414
Notices served for Defective Slopstone Pipes	118	61	54	25	258
,, ,, Drains	144	153	169	193	659
,, ,, Spouts	54	15	28	59	156
,, ,, Water Closets	79	71	143	121	414
,, ,, Privies and Ashpits	1	4	...	...	5
,, ,, Yard Pavement	42	21	...	9	72
,, Infected House	1	...	...	...	1
,, Overcrowding	...	...	2	3	5
,, Limewashing	48	90	89	87	314
,, Manure Accumulations	4	5	7	1	17
,, Stagnant Water	1	...	3	7	11
,, General Nuisances	52	109	27	84	272
Notices served to Sewer, Level, Pave, &c.	133	438	627	255	1,453
,, Flag Yards	474	604	63	158	1,299
,, Convert Privies into W.C.'s	516	482	8	195	1,201
,, Fill up Ashpits	6	22	29	41	98
,, Convert Back-to-back Houses	4	...	...	...	4
,, Close Houses unfit, &c.	...	...	...	10	10
,, Close Cowsheds unfit, &c.	1	...	...	...	1
,, Supply Ashpail	...	1	2	...	3
House Drains Tested	124	38	44	52	258
School Drains Tested	2	...	...	...	2
Houses Disinfected	170	243	165	130	708
Schools ,,	29	26	23	8	86
Parcels of Bedding Disinfected	67	148	96	87	398
Number of Animals removed	109	15	56	127	307
,, Ashpails cleansed	...	...	...	...	1,441,680
,, Ashpits ,,	...	...	...	...	5,825
Fish Condemned and Destroyed	...	...	Wet 7871 lbs. Dry 685 ,, Shell 2434 ,,		10,990 lbs.
Butchers' Offal Condemned and Destroyed	199 lbs.	...	...	1852 ,,	2,051 lbs.
Fruit ,, ,,	...	...	...	2263 ,,	2,263 ,,

TABLE No. 6A.

Factories, Workshops, Laundries, Workplaces, and Homework.

1.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries)	562		
Workshops (Including Workshop Laundries)	2311		
Workplaces	64		
Homeworkers' Premises	237		
Total	3174		

2.—DEFECTS FOUND.

Particulars.	Number of Defects			Number of Prosecutions.
	Found	Remedied	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—				
Want of Cleanliness	28	27		
Want of Ventilation	1	1		
Overcrowding	—	—		
Want of Drainage of floors	—	—		
Other Nuisances	68	68		
Sanitary accommodation — insufficient ...	66	66		
Sanitary accommodation — unsuitable or defective	45	45		
Sanitary accommodation — not separate for sexes	5	5		
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (s.101)	1	1		
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	3	3		
Failure as regards lists of outworkers (s. 107) ...	12	12		
Giving out work to be done in premises which are — unwholesome (s. 108)	—	—		
Giving out work to be done in premises which are — infected (s. 110) ...	—	—		
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (s. 109)...	—	—		
Other offences	—	—		
Total	229	228		

TABLE 6A.—Continued.

3.—OTHER MATTERS.

Class.		Number.
Matters notified to H.M. Inspectors of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ...		1
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (s. 5):—	Notified by H.M. Inspectors	29
	Reports (of action taken) sent to H.M. Inspectors	26
Other		—
Underground Bakehouses (s. 101):—		
Certificates granted during the year		—
In use at the end of the year		3

Homework :—	Number of Lists.	Number of Outworkers.
List of Outworkers, (s. 107):—		
Lists received	34	61

Addresses of outworkers ...	forwarded to other Authorities ...	—
	received from other Authorities ...	—

Homework in unwholesome or infected premises :—	Wearing Apparel;	Other.
Notices prohibiting homework in unwholesome premises (s. 108) ...		
Cases of Infectious disease notified in homeworkers' premises ...		
Orders prohibiting homework in infected premises (s. 110) ...		

Workshops on the Register (s. 131) at the end of the year		711
Important classes of workshops, such as workshop bakehouses, may be enumerated here	Factories	76
	Retail Bakehouses ...	91
	Public „ ...	23
Total number of workshops on Register ...		901

TABLE No. 10.

Summary of Work done under the Factory and Workshops Act during the Year 1905.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total
Number of Factories and Workshops on Register	164	294	122	321	901
,, Circular Letters sent re Out-workers ...	...	30	...	82	112
,, Out-workers reported	...	21	...	40	61
Visits to Factories and Workshops	622	614	469	691	2396
,, Retail Bakehouses	102	222	87	143	554
,, Public Bakehouses	130	90	65	98	383
,, Home-workers premises	...	...	...	73	73
Drains tested	1	...	...	...	1
Defects found and Remedied:—					
Defective Slopstone Pipes	2	...	...	...	2
,, Drains	2	...	4	15	21
,, Spouts	3	...	2	2	7
,, Water Closets	2	7	4	10	23
Offensive Ashpit	1	...	...	3	4
Unflagged Yards	2	...	...	4	6
Privies converted into W.C's.	34	...	...	10	44
Limewashing required.....	3	13	10	4	30
General Nuisances	2	3	6	12	23
Insufficient Ventilation	1	...	...	...	1
Defective Floors	...	2	...	...	2
Insufficient W.C. accommodation for Females	52	32	20	4	108
,, ,, Males	46	13	...	...	59
No Receptacle for Refuse	...	...	...	3	3
Manure Accumulations	...	1	...	...	1
No Abstract of Workshops Act in Workroom.....	...	...	...	1	1

TABLE No. 11.

List of Factories and Workshops on Register during the Year 1905.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Bakers and Confectioners (Retail)	24	33	9	25	91
Bakers (Public)	8	5	4	6	23
Basket Makers	1	2	2	1	6
Beer Bottlers	3	2	...	3	8
Boot, Shoe, and Clog Makers, Leather Curriers	21	40	19	27	107
Brassfounders	1	2	...	...	3
Breweries	1	4	...	4	9
Brush Makers	1	1	...	2	4
Biscuit Makers	...	4	...	...	4
Cabinet Makers, Wood Carvers, Upholsterers	4	5	6	14	29
Coach Builders	1	5	...	4	10
Cotton Waste Cleaners	...	1	...	...	1
Cotton Manufacturers	21	17	17	7	62
Coopers	1	2	1	...	4
Cycle Makers and Enamellers	3	11	6	7	27
Engravers	...	...	...	6	6
French Polishers	1	...	...	2	3
Ironfounders	4	5	...	1	10
Joiners, Builders, Wheelwrights, Wood Turners	12	9	4	9	34
Marine Store Dealers	...	4	...	2	6
Milliners, Dressmakers, Underclothing Manufacturers	24	62	24	46	156
Picture Framers, Mount Cutters, Gilders	...	4	1	6	11
Photographers	2	3	...	2	7
Printers, Bookbinders	...	1	...	15	16
Plumbers, Painters	10	12	2	18	42
Restaurant Keepers	...	3	...	3	6
Rope and Twine Makers	2	...	2	...	4
Saddlers	1	6	1	3	11
Smiths	4	6	6	22	38
Stone and Marble Masons	4	5	...	2	11
Sugar Boilers	...	1	...	...	1
Tailors	6	29	11	42	88
Watch Makers and Jewellers	...	11	3	10	24
Wire Workers	...	...	1	1	2
Offensive Trades: Fell Mongers	...	...	...	1	1
Offensive Trades: Soap Boilers	...	...	1	4	5
Offensive Trades: Fat and Tallow Melters	...	3	...	3	6
Offensive Trades: Tripe Boilers	1	2	...	1	4
Offensive Trades: Knacker Yards	1	...	...	...	1
Offensive Trades: Gut Scrapers	...	4	...	...	4
Various	2	7	3	22	34

TABLE No. 12.

HEALTH VISITORS.

Summary of Work done during the Year 1905.

				Districts.		Total.
				A.	B.	
Visits, Diarrhœa Deaths.	Number of Houses visited			71	41	112
	„ „	Found Clean		62	31	93
	„ „ „	Dirty		9	10	19
	Children	Breast Fed ...		7	2	9
		Artificially Fed		59	35	94
		Partially Breast Fed		5	4	9
Visits, Measles Deaths.	Number of Houses visited			33	21	54
	„ „	Found Clean		26	17	43
	„ „ „	Dirty		7	4	11
Visits, Births.	Number of Houses visited			1692	1253	2945
	„ „	Found Clean		1574	1104	2678
	„ „ „	Dirty		118	149	267
	Children	Breast Fed		1208	802	2010
		Artificially Fed		304	195	499
		Partially Breast Fed		180	256	436
Visits, House to House.	Number of Houses visited			44	241	285
	„ „	Found Clean		16	143	159
	„ „ „	Dirty		28	98	126
	Visits—Infectious Disease amongst School Children			1077	744	1821
	Re-visits, Number of			1605	1244	2849
	No. of Cards distributed ...			1692	1253	2945

TABLE No 13.

Return of Work done by Inspector of Food and Drugs, &c., during the year 1905.

Food and Drugs, Samples purchased	270
Cow-sheds and Dairies visited	135
Slaughter-houses visited	4311
Meat Condemned and Destroyed	109,564 lbs.
Fish Do. Do.	822 lbs.

TABLE No. 14.

Contagious Diseases (Animals) Act, 1878.

Name of Disease.	Situation of Premises.	Date of Outbreak.	Number of Diseased Animals.	Number of Healthy Animals.	Slaughtered by Owner.	Slaughtered by Order of Board of Agriculture.	Number of Visits.
NO CASES DURING 1905.							

TABLE No. 15.

Substances submitted for Analysis during the Year 1905.

Name of Article.	No. of Samples.	Result.
Butter	66	Genuine
Bread	2	Do.
Coffee	25	Do.
Cheese	4	Do.
C'mpound Liquorice Powder	18	Do.
Honey	2	Do.
Jam	1	Do.
Lard	17	Do.
Medicine	2	Do.
Milk	77	Do.
Margarine	2	Do.
Pepper (White) ...	7	Do.
Pepper (Cayenne) ...	1	Do.
Sweets	5	Do.
Vinegar	3	Do.
Whiskey	17	Do
Wine (Port)	2	Do.
	251	Genuine
	19	Adulterated
	270	Total
Coffee	1	Contained 40 per cent. of chicory. Vendor summoned, and fined 10s. and costs.
C'mpound Liquorice Powder	1	Contained 1 per cent. ground olive stones.
,, ...	1	,, ,, ,,
,, ...	1	Contained 5 per cent. ground olive stones. Vendor summoned, and fined 5s. and costs.
,, ...	1	Contained 3 per cent. ground olive stones, and 5 per cent. maize starch. Vendor summoned, and fined 5s. and costs.
Milk	1	2·32 per cent. fat, 9·32 per cent. other solids, = 11·64 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	2·35 per cent. fat, 8·87 per cent. other solids, = 11·22 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	2·56 per cent. fat, 8·73 per cent. other solids, = 11·29 per cent. total solids. Vendor summoned, and fined 5s. and costs.
,, ...	1	2·57 per cent. fat, 8·68 per cent. other solids, = 11·25 per cent. total solids. Vendor summoned; case dismissed.

TABLE No. 15—(Continued).

Name of Article.	No. of Samples.	Result.
Milk	1	2 61 per cent. fat, 8·97 per cent. other solids, = 11·58 per cent. total solids. Vendor summoned, and fined 20s. and costs.
,, ...	1	2·70 per cent fat, 9·16 per cent. other solids, = 11·86 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	2·73 per cent. fat, 9·09 per cent. other solids, = 11·82 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	2·76 per cent. fat, 9·13 per cent. other solids, = 11·89 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	2·76 per cent. fat, 9·32 per cent other solids, = 12·08 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	2·76 per cent. fat, 8·85 per cent. other solids, = 11·61 per cent. total solids. Vendor cautioned by Town Clerk.
,, ...	1	3·29 per cent. fat, 8·01 per cent. other solids, = 11·30 per cent. total solids ; and 6 per cent. added water. Vendor summoned ; case dismissed.
Vinegar.....	1	Doubtful.
Whiskey	1	1·0 per cent. below the statutory limit.
,, ...	1	7·5 per cent. below the statutory limit. Vendor summoned, and fined 10s. and costs.

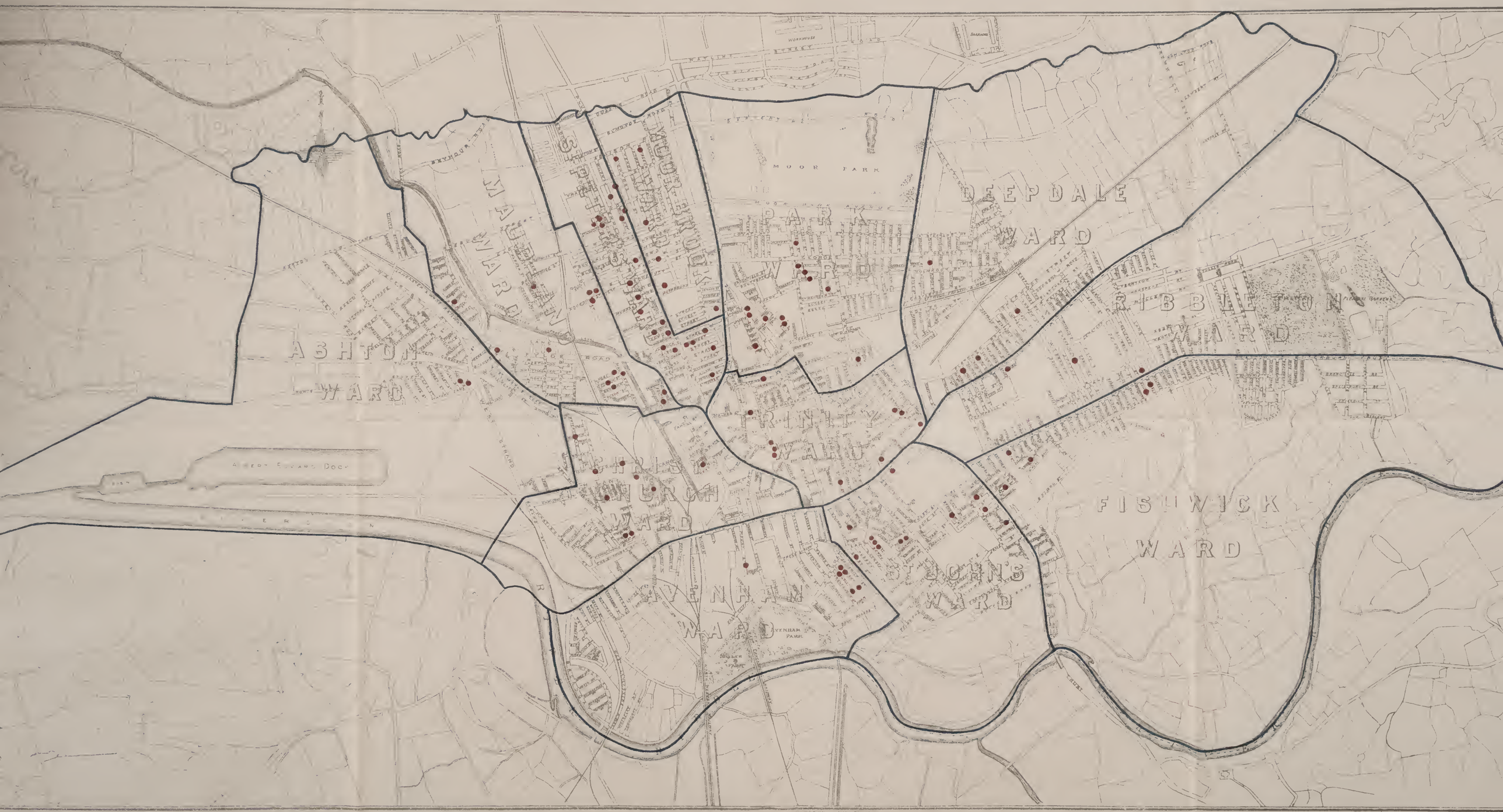
TABLE No. 16.

Return of Port Sanitary Work for the Year ending December 31st, 1905.

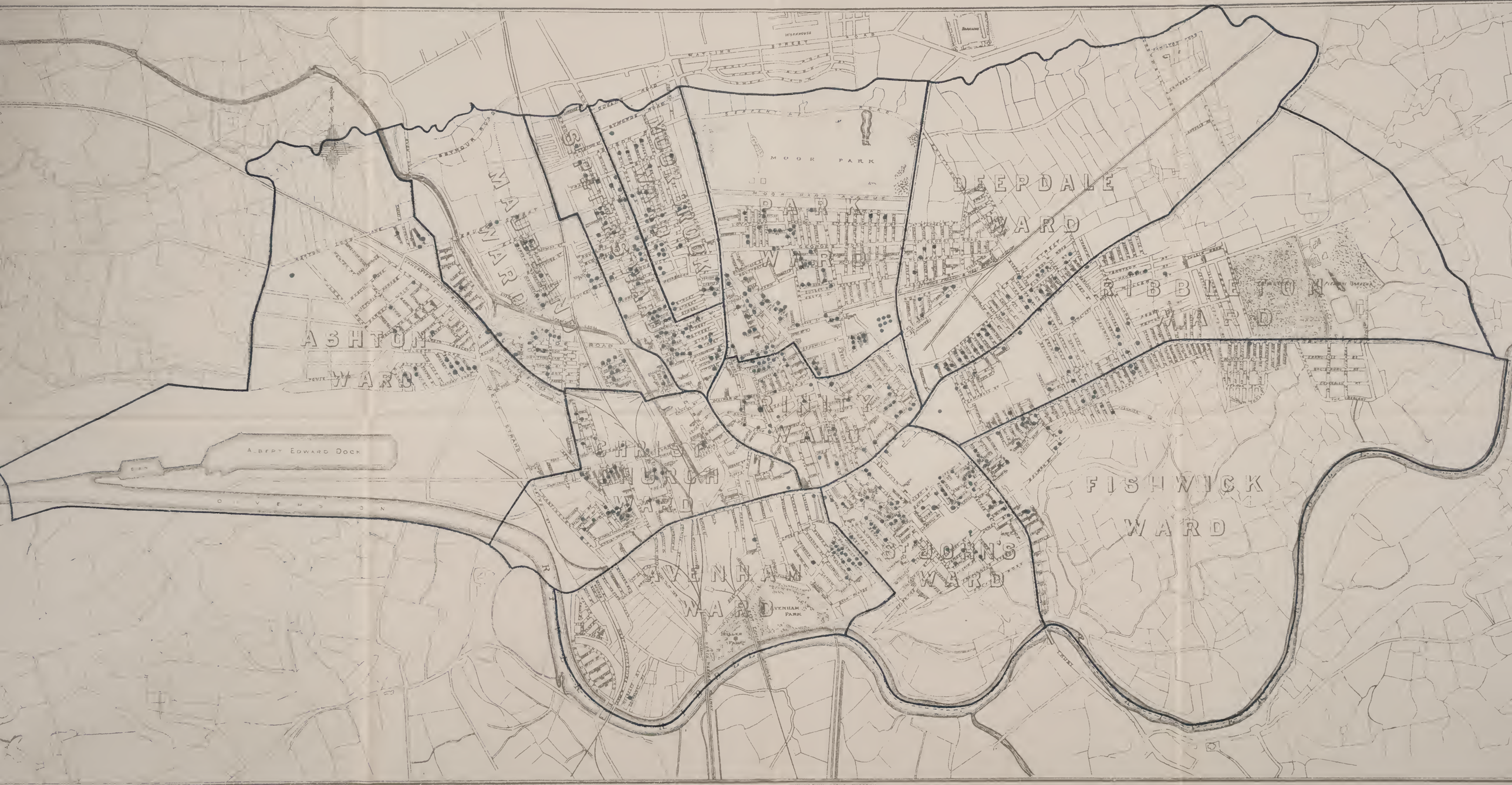
Steamships Inspected		1148
Sailing Vessels Inspected		139
Re-Inspections		103
Condition of Vessels Inspected	Good	1140
	Defective	147
Defects Remedied :—		
Forecastle Dirty		39
Do. Required Painting		21
Do. Deck Leaking		5
Do. Ventilation and Light Defective		7
Foul and Defective Water Closets		42
Foul Water Casks and Tanks		18
Dirty Provision Lockers		32
Do. Bilges		9
Do. Chain Lockers under Forecastle		6

INFANTILE DIARRHŒA, 1905.

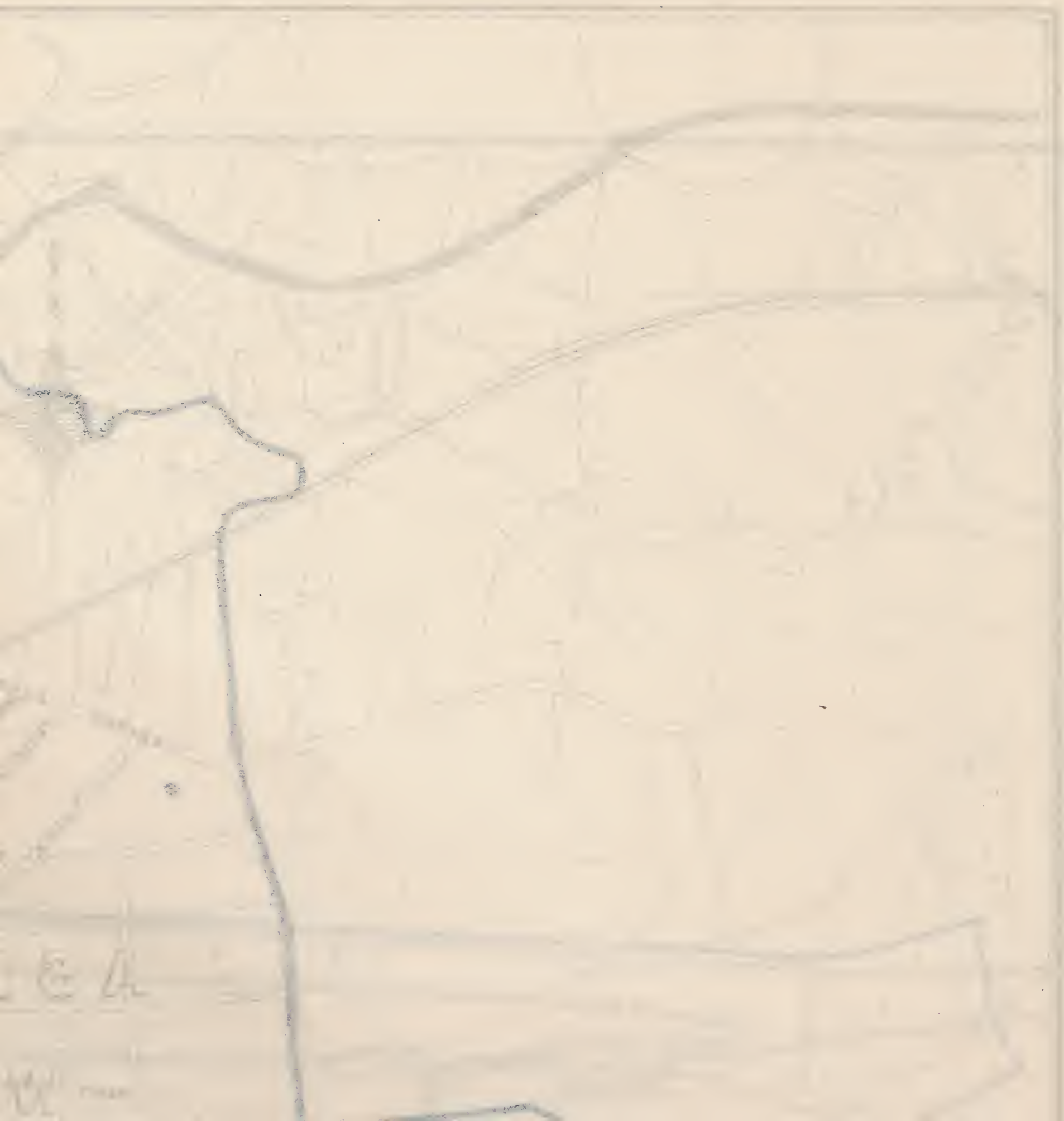
The Red Spots ● indicate deaths from Diarrhœa under the age of one year.



INFANTILE MORTALITY 1905.

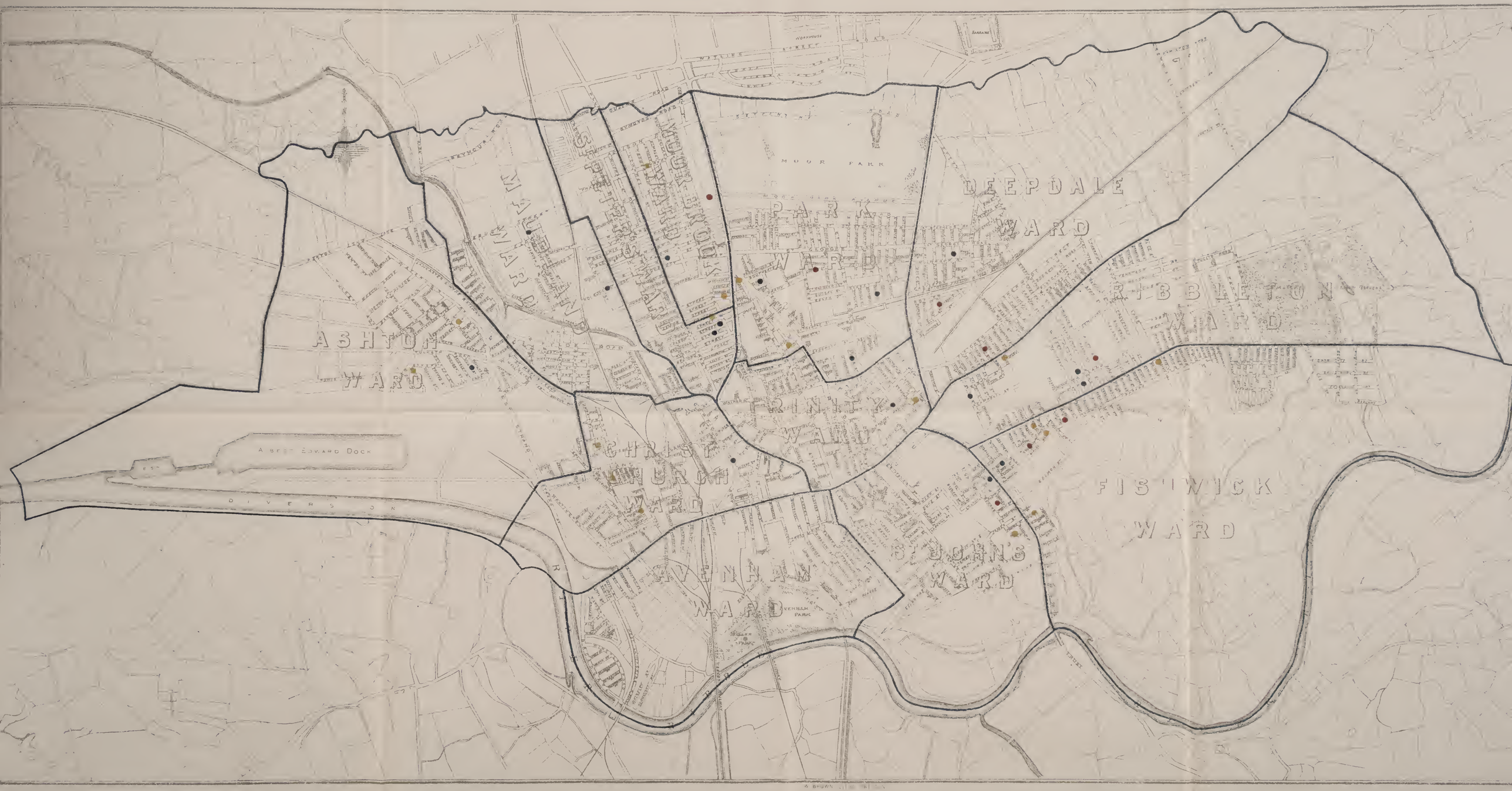


W BROWN LITHO PRESTON



ZYMOTIC DISEASES, 1905.

The Red Spots ● indicate deaths from Scarlet fever.
The Blue Spots ● „ „ Typhoid fever.
The Yellow Spots ● „ „ Diphtheria.





Portions coloured Red indicate Property reported upon and improved during the Year 1905

Those in lighter shade indicate Blocks dealt with during the previous Twenty One Years





JAN. FEB. MAR. APL. MAY. JUN. JUL. AUG. SEP. OCT. NOV. DEC.

NUMBER OF CASES AND DEGREES OF TEMPERATURE	FORTNIGHT ENDING	14	28	11	25	11	25	8	22	6	20	3	17	1	15	29	12	26	9	23	7	21	4	18	2	16	30	NUMBER OF CASES AND DEGREES OF TEMPERATURE
RAINFALL IN INCHES		1·76	·30	·38	·63	1·86	1·12	1·45	·24	1·43	·08	·33	1·15	1·68	·59	1·81	1·17	1·73	2·76	·20	1·61	1·19	1·10	1·70	2·11	·35	·37	RAINFALL IN INCHES

70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

EARTH TEMPERATURE 4 FT

MEAN DAILY TEMPERATURE

MORTALITY FROM BRONCHITIS

MORTALITY FROM DIARRHOEA

EARTH TEMPERATURE 4 FT

MEAN DAILY TEMPERATURE

MORTALITY FROM BRONCHITIS

MORTALITY FROM DIARRHOEA

JAN. FEB. MAR. APL. MAY. JUN. JUL. AUG. SEP. OCT. NOV. DEC.

ROYAL STATISTICAL SOCIETY
13 JUN 1906

NATIONAL MUSEUM
15 JAN 1909